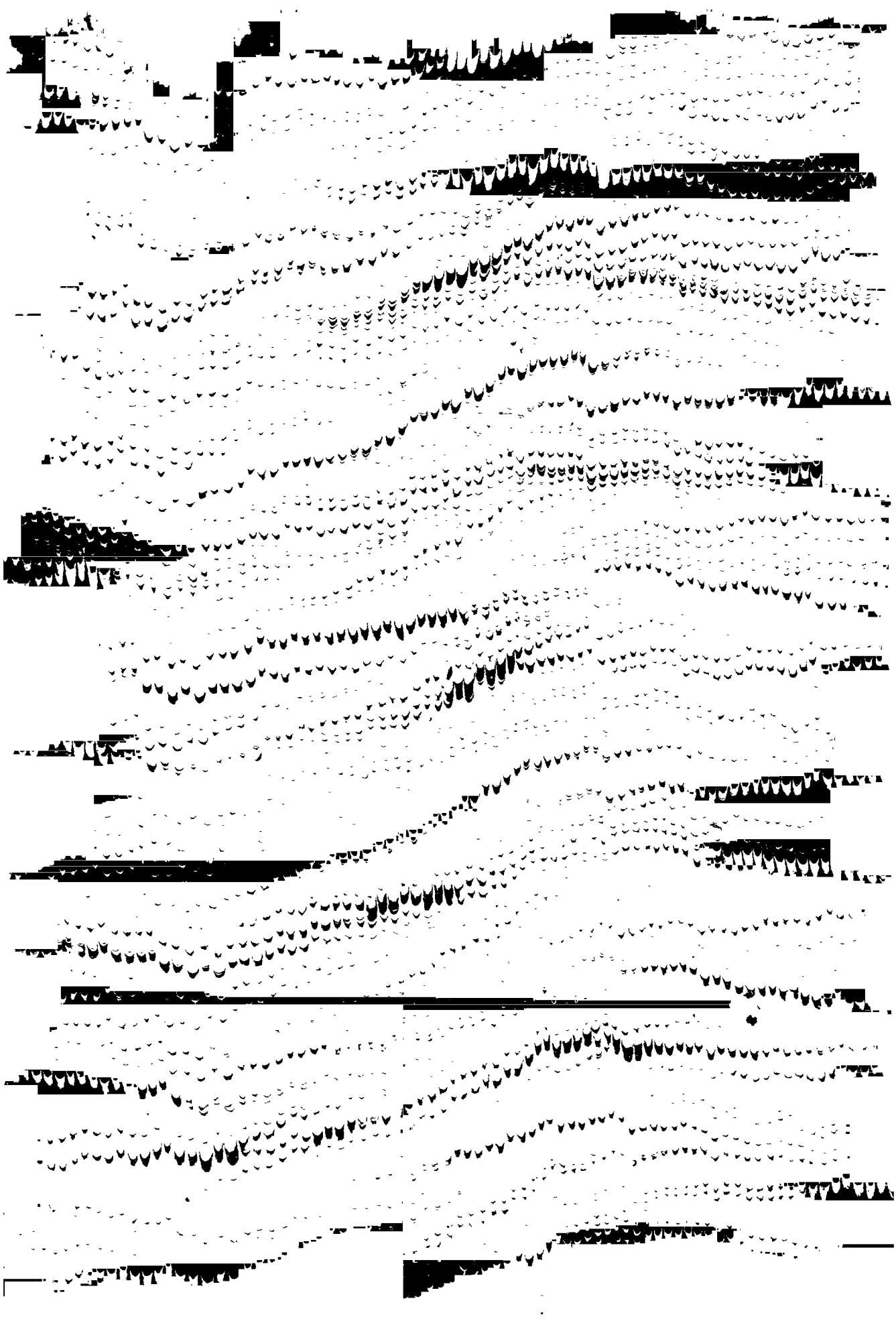


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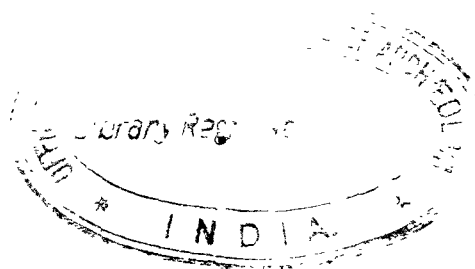


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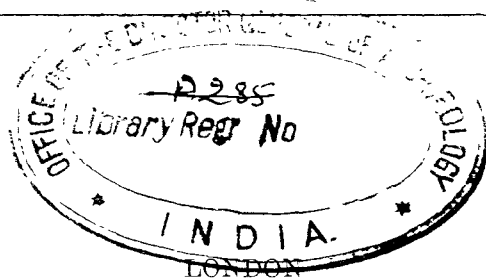
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Seventy-fourth Session—1908–1909.

THE OPENING ADDRESS. Delivered by the President, Mr. ERNEST GEORGE,
at the First General Meeting. Monday, 2nd November 1908.

MY Brother Architects,—I am very sensible of the honour conferred upon me by election to this Chair which has held a succession of distinguished men, each having worked earnestly and wisely for the good of our art and for the best interests of our Institute. My desire is to follow in the footsteps of these good men and true, relying on your kind sympathy and help.

Ladies and Gentlemen,—I am called upon to-night to give my views on Architecture and its present position, for such a pronouncement is expected of each President. I speak with diffidence, knowing there are those here at whose feet I well might sit. Still, it takes many sorts to make a world, and during a lifetime we each acquire some knowledge or personal outlook that may be worth imparting.

In the days of my pupillage the battle raged around the Styles. Students who sought medals and architects who entered upon competitions felt that their chances depended largely upon whether the Assessor was a Gothic or a Classic man. The Law Courts were leaving their ancient Hall at Westminster, and it was decided that their new home should be of Gothic character. For the new Government offices Sir Gilbert Scott's Gothic scheme was chosen, when, with a change of Ministry, he was required to convert his design from its mediævalism to that which we see now. A Religious revival and church building era was entered upon. Following the Pugins, Gilbert Scott and George Street were building and writing, while John Ruskin in beautiful and forcible language set forth his own views of Art and its aims, and enthusiasm was stirred. From the vernacular mode of building with its sobriety and dulness there was a reaction. Gables broke the sky, and there was a general movement for the *Picturesque*, which, though one of the various forms of architectural charm, is not the highest. Medley took the place of lost traditions, and it was questioned if order or harmony would ever be touched again.

Well, after all the experiments we have been through in styles of various periods, whether the *motifs* were Gothic, François-Premier, or Dutch, we seem now, at least in our street architecture, to be approaching a common language in a version of English Renaissance; a style that is not rigid in its laws, and which adapts itself to varying requirements and uses. At the same time individuality is somewhat lost, and the architect's handwriting cannot always be identified. In the competition drawings for the County Hall, lately seen together, it

was curious to note how little one author was distinguishable from another, with any certainty; the compositions were good or bad on very similar lines.

The possibility of all working again in a universal style has often been discussed; I do not think it will ever be attained, nor do I feel sure that it would be a gain. We should be the losers if our painters, writers, and musicians were all of one school. Those who desire uniformity probably hope that their neighbours will make the change of step. In earlier days, while tradition lasted, it was natural for all to work in one manner. There are now too many forms in our vocabulary to be set aside by a process of selection.

We are a *free* people, and we feel at liberty to do what we please, especially with a freehold possession. Certain laws are enacted and enforced for the sanitary fitness of buildings, the safety of construction, and preservation from fire; but there is no law to protect us from monstrosities, and our sense of beauty may be constantly wounded, much as the senses are pained by street music and by the noise and stench of motors.

It is seriously under consideration whether rules and conditions of building may not be made to secure us against flagrant breaches of taste, at least in our streets, designs being submitted, before perpetration, to some constituted authority or committee of taste. I am fully aware of the difficulties or drawbacks to such a scheme. We must avoid dictation from mere official judgment, which would often be irritating and probably blind to a work of genius. A Vigilance Committee under a Minister of Fine Arts might not always act wisely, and would possibly be composed of old-school men with their prejudices, perhaps including a time-being President of the Institute. Among ourselves we might have a Consultative Committee of three or four men of judgment, to whom, as a matter of grace, designs would be shown, with adjoining buildings indicated. Errors of taste could thus be pointed out before being committed to stone. In great Public Works such consultation would be valuable, and in France we find leading men working in unison to the advantage of their art.

We must always regret the opportunity lost in the Strand, the County Council having taken expert advice on a grand scheme for rebuilding that quarter of the town, a scheme which was allowed to die a natural death. My personal feeling is against the rigid following of a set elevation through the length of a street. We do not wish to see London "Haussmannised." Violent diversity should be avoided, while the cornices and leading lines of buildings should be taken up where practicable.

The case of the Regent Quadrant is exceptional, and we value the decision of the Crown that the original scheme of Nash shall be followed in a glorified form, as we already see it in the strongly characteristic new portion just completed. It is at the sky-line that the beauty of the curve or sweep of the Circus can be appreciated, and this line can only be preserved by the following of one design. It is, nevertheless, a misfortune that in this first note of the new harmony, havoc has been made of the said sky-line, for back buildings which come very near to the front are jumping up in a most unrestrained way. The Circus carried out on Mr. Norman Shaw's design will have great distinction, and will form a dignified example of street architecture. We regret that with it we cannot have a wider street, for the necessarily increased height and the broad scale of the detail lessen the apparent space. In this street of shops we must not, as practical men, ask for a restoration of the Colonnade, which in my youth I can remember as an interesting architectural feature in the Quadrant.

When we look at Nash's work, albeit in stucco, we feel what a much simpler problem he had to deal with than falls to us. With but two stories of windows above his ground floor it was easy to make effective spacing, with here a group of columns and there an attic story or pediment. With increased land values the demand is now for five or six stories in height and another two in the roof, giving a monotonous repetition of parts. When such

new buildings take the place of old in existing streets, there is a proportionate loss of light, and it should be our effort to catch all that is granted us of London's diluted sunlight.

I remember when submitting plans to the late Duke of Westminster, who personally considered all rebuilding schemes on his estate, he made the wise proposal that the south side of the street should be kept lower than the opposite side, to admit sunlight. My building was docked of a story, but I felt the decision was the result of enlightened legislation.

There is a just relation between the height of buildings and the width of streets, and we feel satisfaction when this is attained. Yet we know cities of tall palaces in narrow streets, where the sky is but a fractional quantity. How mysterious and beautiful are these narrow ways between architectural walls! I recall the impression of such streets that have become the homes or hives of the poor; mean garments hanging from every window, the effect of the whole, with its deep tones and sparkling lights, full of beauty to the artist. The occupants of Grosvenor Square might hang all their choicest costumes from their windows, and we should not gain a scintillation of pleasure: so much circumstances alter cases.

One foggy day a brother architect expressed to me his satisfaction in the veil that hid away the London architecture: I did not share his feeling, for I find no panorama more interesting than that which is gained, perhaps from the top of an omnibus, in the journey from the West to the Bank, with an excursion into Finsbury. There are buildings old, new, good, and bad, the interest centering in the quarter that is rising between the Strand churches.

Leigh Hunt said of Nash that "he found us all brick and left us all plaster." Now the brick and the plaster are disappearing, making way for Portland stone, than which no finer material will be found with its pearly whiteness, at least on its south and west sides, even in our sooty city. Terra-cotta has been tried and found wanting: its surface cannot resist the insidious combination of sulphur and damp that makes our London atmosphere.

We must not ignore the new material known as "Carrara," a Doulton ware. It shares with terra-cotta the weakness of being a pottery casing filled in with alien matter, but the surface is satisfactory, as seen in several important examples in our streets: it avoids the glitter of most tile surfaces, while the mouldings or modelling upon it are clean and sharp, telling their tale without the coarseness that is sometimes resorted to in making telling features in stone, big rustics, keystones, &c.

We must accept the fact that our streets are composed of shops and that our architecture must adapt itself to trade purposes. The builders of those fine Hanse towns built for tradesmen, and our clients must not feel that they have to make choice between architecture and utility. Ample supports must be shown and not hidden by plate-glass: but one often sees robust rustications, keystones, and blockings that are somewhat out of scale with the shop and its purpose.

Whatever harmony may be arrived at in the rebuilding of our towns, there will remain diversity in the treatment of the country house. A house in its park may, without making a false note, express the individualities of its owner. While to one the dignity of the columned portico, classic proportion, and breadth of treatment appeal, another, in whom the romantic element is strong, finds formality chilling: he will be happier in panelled rooms with their long mullioned windows. There will still be Horace Walpoles and Walter Scotts as well as Greek revivalists.

Various types may be taken in starting the lines of a really modern house, avoiding both pedantry and mediævalism. I speak of types, for I believe that when the utmost originality is intended, there is, consciously or unconsciously, a reminiscence of something that has been before and that has left its influence with us. I say this, not forgetting that we have amongst us "l'Art Nouveau"; but in that old forms are resuscitated, chimney-stacks and gate-posts following the obelisk or pylon of Egypt.

Looking at the examples that we may class as "New Art," we find much freshness, with an earnest effort to avoid familiar forms and ways, yet sometimes without rhyme or reason. We have seen architraves to the jambs of windows which, when they get near the top, suddenly cease, leaving the window-head without shelter. Such treatment is original, for it has not been done before; I hope it will not be done again. That which is surprising may be attractive in a sketch or tolerated in a competition drawing, but in a permanent building a freak or surprise, I am sure, should be avoided. This phase is infecting the Old World, and I have seen its wildest manifestations in new hotels in old Spanish towns.

There is with us a tendency to exaggerate features--keystones so large that they dominate a building, or stone blockings upon columns that smother the shaft. In spite of such efforts, Tradition has still its strong hold: the love for time-honoured buildings, the associations with them, their texture and mellowness, instinctively appeal to us. The client for whom we build dreads seeming startlingly modern with his new house. Instead of feeling a just pride in the creation of his "pleasance," he would rather it should seem to belong to the past.

As with the buildings, so with the old stuffs, decoration and pictures. It is a misfortune that the fashion prevails of filling new houses with pseudo-antique furniture, often badly made and maltreated to give the appearance of age. Whole streets in good quarters of the town are given up to the sale of *objets*, old, second-hand, or spurious antique, the public believing that such is the right thing to buy. The workshops of Nuremberg and Venice have a vast industry in producing "old" things to meet the demand, while our own craftsmen lack encouragement. While commenting thus, I confess to having spent my own pocket-money on various cabinets and other objects that I prize, and that I find good to live with. Such things should be in the hands of artists and should be preserved with reverence. My tirade is against the buying of them in ignorance, as a fashion that checks progress and development. As a critic says, "the past will not supply enough fuel to keep up the fires of imagination."

The regard for the things of the past existed as long ago as when the "sleeping Cupid" of the youthful Michelangelo was stained down and sold as an "antique" to fetch the better price. The craze has its root in the reverence that we all share for the things and for the men of the past; it is a form of ancestor-worship. A painter must be dead before we realise that he has been doing great work, and the pictures that he could not sell will change hands at rapidly increasing values.

Of our noble Museums and National Collections we may be justly proud: yet an able writer tells us that these are having a baneful influence on modern art. There has been a resurrection of old forms and a tendency to *copy*, instead of seeking inspiration, and this checks creative power. This critic argues that Greek sculpture should not be considered away from its natural environment, nor Italian paintings away from the churches (often badly lighted) for which they were painted. Our Museums and Galleries are especially the poor man's possession, and one is glad to find in them the crowd of earnest faces. Those who come from sordid surroundings to study the masterpieces will but imperfectly comprehend them, yet the glory and joy of a Titian must have some message for them, and I would not limit the knowledge of these great works to those only who can afford a Cooks' ticket to Venice or to Athens.

We have left many things undone, but we are treating our art treasures with respect. The accumulation of choice things at South Kensington we hope soon to see spreading through the noble Palace that Sir Aston Webb has, with so much wisdom and care, schemed for them; while at the British Museum spacious additions are now rising from the skilled hands of Mr. John Burnet. This work is begun in no mean spirit, for the imposing new façade will have a dignified approach (unusual in our buildings) by the clearance and rescheming of the adjoining property; this through the combined efforts of the ducal landowner and the

County Council. Our National Gallery is also to gain a much-desired addition, which will occupy the space of the barracks : these now impinge upon it, with the constant risk of fire.

Turning from ancient things to new, we may be called upon to make a departure in design to meet modern construction in steel and concrete. The Romans were concrete builders, but they were not afraid of bulk, and their works, still with us, satisfy the eye with their proportion and substance. But the use of concrete has become a science ; there is a Concrete Institute, and able men have made the finest calculations as to the work that may be done in concrete and ferro-concrete, with infinitesimal quantities.

We live in an age of hurry : ground-rents are heavy, and a great commercial building must be erected in one year instead of three : thus steel-framed *construction* will be taking the place of *building*. We may now see such a steel structure in Oxford Street, a dry-goods store. Its foundations go down to the Twopenny Tube, and its roof is near the sky. This iron framework is now being enclosed with a gigantic order of columns which bring it within the laws of the Building Act and give it the aspect of a Temple. The County Council have decided that next year we shall have a revised Act countenancing the thinness of walls that are sufficient for their load in the new material.

Many of our colleagues are already building in the new method, erecting steel frames and filling in the spaces, the excuse being the saving of time. The buildings I have in my mind have been finished with architectural propriety, and the skeleton within is hidden and forgotten. But if this mode of construction becomes general, a style must be evolved adapted to it. It is not reasonable to make a show of stone walls, giving to the piers a comfortable width, when we know that the stone has no work to do. With our great adaptability, the eye and the mind may get accustomed to ferro-concrete posts and may credit them with their real strength. But shall we be satisfied without an apparent thickness and a breadth of wall-space for light and shadow ? I am not anxious to anticipate so violent a change, and I trust it will not come about till my work is done.

While speaking of concrete we have to thank the engineers for a valued application of the material. Mr. Francis Fox lately explained to us here* how renewed youth is being imparted to crumbling walls, mossy and lichen-covered—a steam blast of cement filling the perished insides and the cracks, without change to the surface.

The London County Council Technical Schools are to teach “ Architecture ” in connection with their School of Building ; and this will do good unless those gaining this elementary knowledge think they must thereby become architects, as, unfortunately, the bulk of South Kensington students feel they must become painters of easel pictures—a thing that was never intended when the schools were founded for training the taste of the artificer.

The growing interest in the Crafts is quite a feature of our time, and it is interesting to find men with the higher education becoming workers in metal, gesso, and designers of stuffs and various decorative material. In my humble opinion Sculpture has made the greatest advance in our time, and we have sculptors who are not limited to the production of statues, but who adapt their work to architecture with a reserve and a knowledge of the wants of a building.

In our country the Painter is seldom allowed a chance, though we can look with pleasure on a few successful examples of mural painting. It may be that our people do not enjoy colour or feel the need of it, for I have generally found that the spaces one has reserved for decorative painting are allowed to go bare. The client does not want colour, or is afraid of it.

* “ Foundations : the Use of Divers and the Grouting Machine,” JOURNAL R.I.B.A., 22nd February 1908, p. 249.

He may be induced to give a thousand pounds for a fine tapestry for a staircase wall, and well it will look ; but that is no encouragement to contemporary art. I have just returned from the hill towns of Italy, where one is struck by the aptitude of the Italian for painting walls and vaults. He understands the disposition of colour : his works may be crude, but in a half-light there is a richness about the humblest village church. The method is traditional with him, and it is not so with us ; he may indulge in architectural vistas and perspectives which we should not approve. But did not Michelangelo do the like ?

We architects feel that Architecture must be predominant in the arts, with her sisters or daughters subject to her. When the decorative arts have been at their highest and craftsmen most skilled, we find that the shapes and proportions of buildings are unconsidered. While we do reverence to the great frescoes of Florence we regret the ill proportion of the Duomo, with its wide bays, the walls having been spaced with the one object of receiving pictures. While we admire the exquisite detail of the Certosa of Pavia, and the fanciful and refined sculptures of the Francois-Premier chateaux, we generally find that the building has no studied scheme or proportion, but is the result of accident, its charm being in the detail and the fancies of the sculptor, who was a consummate craftsman. We ask that the building shall be designed on noble lines, the sculpture and painting being part of one scheme, and they will not be the less precious.

In Scotland a Royal Commission was some time since appointed with the object of preserving ancient and historic monuments ; and we are glad to say that a similar Royal Commission is now to interest itself in such memorials in England.

The Prime Minister has asked us to name an architect to serve on this Commission, and our able friend Leonard Stokes is to help in this cause. The intention is to schedule buildings and objects of historic or archæological interest, and to protect these from ruthless treatment or neglect.

The National Trust, on which we have a representative in Mr. W. A. Forsyth, is doing useful work on somewhat similar lines.

Following the decision of Architects in Congress, we British Architects have joined those of other nations in the demand that " Architecture " be named with Painting and Sculpture in the scheme for International Copyright. What value such right will ever have is difficult to say. Copyright at home would be worth more to us, but it would be hard to enforce. The gables of Scotland Yard have a broken pediment with an obelisk finial. It is so pleasing and piquant a feature that the form has been borrowed for various other gables that we see. It would never occur to the distinguished architect to demand a royalty from those who have employed this pediment ; they would probably claim to have found their inspiration in the original Dutch gable. The ubiquitous copyist, though a nuisance, is a sincere flatterer.

Of public works in progress there are the Museums of which we have spoken. There is also, on the stocks, a further important addition to the South Kensington group, Sir Aston Webb having been entrusted with the Technical Schools, which will make a further development of this Department of Instruction.

The Arch of Decimus Burton on Constitution Hill should gain by the promised gift of a fine sculptured group. We look forward to seeing at an early date the Processional Road making its way through the triple arches by which the architect has skilfully disguised the twist in the road which joins it with Trafalgar Square. It will cease to be the restful retreat that it forms now, but I trust it will never be profaned by tramways or motor 'buses. The Londoner must preserve some haven where he may possess his soul in peace.

The formation of County Councils and of Municipal Corporations has given an impetus to the building of Town-Halls, and some of these are among the most successful and characteristic of our modern buildings.

I hope I am rightly informed in saying that the design of Mr. Knott, the fortunate competitor for the County Hall, has been revised and is practically approved by the Council, with every chance of being carried out. We congratulate Mr. Knott heartily; he is to be one of our great architects, for opportunities make men. One is pained to think of the good men and true artists who have started with the qualifications for fine work but on whom Fortune has never turned her face.

In the building of churches the Gothic tradition still prevails, but not necessarily as a resuscitated art. I feel that in most of the works that Bodley has left to us there is a very personal vitality. Bentley has given us a monument of which we may well be proud in his Cathedral of Westminster. There are few interiors at home or abroad having the solemn impressiveness conveyed by this vaulted space.

It is some months since I saw the piers rising, and the stone preparing, for the great Cathedral at Liverpool which is planted on a rock, and which promises to be not less inspiring than the great abbeys of the past. Here I did feel that it would be incomplete without a revival of the conditions and monastic institutions of the *Mogen-âge*.

A mushroom growth of the present year is the Franco-British Exhibition, and it is a triumph of paste-board construction, with an aspect of permanence. It is laid out with taste and design, and avoids that wilderness character that has been depressing in most Exhibitions. In the several buildings, arcades and colonnades, there are suggestions that in solid material would have dignity. Various flimsy and fanciful features are not inappropriate to the medium employed and to the temporary purpose of the structure. It has been very interesting and not ungratifying to our painters and sculptors, to see their works in juxtaposition to those of their French colleagues.

A matter that has been much discussed in this room for years past is the need for a comprehensive scheme for the changes that are always making in our great cities. We desire that the work of rebuilding, which never ceases, should be a part of one well-devised scheme anticipating the ever-increasing needs of a growing population. We might then have some day direct routes from east to west and north to south, fine approaches to our public buildings, and ready access to our parks and open spaces. New suburbs developed should be the result of forethought, instead of growing, as now, beneath the wand of the jerrybuilder. The Local Government Board is now framing a Bill to meet this great need, and our Royal Institute has addressed a letter to the President of the Board requesting that we may have "specific permission" to make representations and recommendations at inquiries held by the Board, before the approval of schemes for town planning. We are all interested in the humanitarian side of this subject, but, as architects, we only ask to offer advice from the æsthetic or architectural point of view: endeavouring that new streets shall give fine vistas, being considered in relation to the public buildings or churches which they may pass in their route or to which they lead. The placing of public monuments and the laying-out of parks and their approaches are all matters about which judgment from the artistic side is essential.

I remember the discussion that preceded the forming of Northumberland Avenue, which involved the destruction of an historic London mansion: for a way was wanted between Charing Cross and the new river embankment. A street was set out with dignified width to take tall houses: but these after running for two hundred yards cease. A view across the river would have given a certain interest: but by perversity this important road leads only to the skew

side of an iron railway bridge, a signal post being the chief feature in the vista. It is to avoid similar accidents that we are vigilant.

We have already formed a small committee of men best qualified to help in this important matter, and they are putting in a definite form the principles that should rule, as well as their views and suggestions. Our Allied Societies will be invited to work with us: we shall thus be prepared to advise when our assistance is wanted.

Our Royal Institute is of venerable age, having enjoyed a Royal Charter for seventy-five years. The revised Charter for which we are applying is now before the Privy Council, and we hope it will be granted before the end of the year. Its main object is to secure that those practising architecture shall have gone through a proper training, having passed examinations as to their knowledge of building construction and studied the principles of design: but no examinations will guarantee that a man is an artist in his calling.

Among the Universities Cambridge and Liverpool are giving a prominent place to Architecture among the subjects that may be taken for graduation, and this is certainly an advance. We most of us feel, however, that any degree should be given to the graduate as a student, and should not distinguish him among architects while he is yet unpractised.

Our By-laws we hope to improve, and especially in quickening the rotation of members on our Council. By shortening the period of service we shall enlist a larger number in our work, at the same time introducing young blood. I observe that those who are not with us in our deliberations are marvellously critical about our conclusions. I would have these sharing our duties. I believe in youth, and had there been a contest for the post of President I think my vote would have been for a vigorous young man.

The education of our future architects is, perhaps, the most important of our duties. The Board of Architectural Education was lately formed by men who were earnest on this subject, and it has done much towards bringing the various schools into touch and to some extent to a common system of teaching. We have not only the School of the Royal Academy, of the Architectural Association, and of South Kensington; the Universities have now their Chairs of Architecture, and the subject is being taught in the many technical and other schools throughout the country. This is a good sign and tends to show that the art is becoming a matter of general interest, where it had hitherto been much ignored.

But with these increased facilities for learning we may feel anxiety as to the future of the many promising youths who are gaining facility in architectural drawing. In earlier days, when the only method was to pay a premium of several hundred guineas and to be articled for four years, the choice of the calling was taken seriously and there was some limit to the number of recruits. We are now daily declining applications from those who seek a place in an office and work for their hands to do. Our annual competitions for prizes show how many there are who can make a good set of drawings. The quantity is all-sufficient, and our effort must be to raise the *quality* and especially to give a helping hand to the prizemen of most promise.

The past summer we had the opportunity of seeing the fine series of drawings by the accomplished Prix de Rome Student, Monsieur Hulot: and it was felt by many of us that it would be a grand thing if our own Travelling Students could enjoy some place of gathering equivalent to the Villa Medici. We already hold a small sum that may be used as a nucleus for the necessary Fund, and the latter would grow by gifts and bequests if it were known that a valuable educational scheme was on foot. America with her usual energy is starting a fully equipped scheme of the kind, and England should be able to do something for the benefit of her wandering scholars. The State does not aid us, but might not the Royal Academy and

the Royal Institute join in making a home abroad where young painters, sculptors, and architects could fraternise, help one another, and receive some guiding direction in the profitable study of great works? We annually disburse large sums in prizes; the winner of our Travelling Studentship would not value it less if it gave him admission to the proposed gathering of prizemen at Rome or elsewhere.

In our Students' Competition for measured drawings from Old Examples it is felt that much earnest work has hitherto been lost by want of selection or by repetition. It is proposed that a careful choice shall be made of subjects that will be of real value, and that the prize drawings shall in future be published in some permanent form.

By the Address of its President, Mr. Walter Cave, we are glad to know that the Architectural Association is full of vigour and prosperity, its building debt being already cleared off. We have evidence of rising talent among these youthful architects. The brilliant little play bearing on our professional interests, which they originated and acted with dramatic power, gave pleasure to us all; I hope we may look for a future essay.

While new men are coming on and new names are added to our roll, we have to regret colleagues that have fallen out of the ranks. Among these are G. F. Bodley, E. W. Mountford, and John Stevenson, as well as Hugh Stannus, whose kindly presence had been so constant in our gatherings here. These all have been taken in the midst of their good work, for architects do not retire. Few of them can afford the luxury of idleness, and it would be found a poor exchange for the constant interest of our occupation.

To those of us who deal little with Public buildings it is no mean thing to build Homes about the country, if our endeavours secure that they are well built, pleasant to live in, and comely. There are occasional vexations, especially when the good client cannot be persuaded to do that which we know is best for him, and we have to do the second best.

But there is abundant pleasure and interest in the work and in its associations. I hope that my brother architects share my feeling that they would never change places with those who are following other and more lucrative callings, or with those who are gracefully unemployed.

VOTE OF THANKS TO THE PRESIDENT.

SIR ASTON WEBB, R.A.: Mr. President, Ladies, and Gentlemen,—Not for the first time I have been asked to propose a vote of thanks to our President. I am afraid you will hope that it may be the last. But I could not resist the pleasure, when I was asked, of proposing this vote to my old friend Ernest George, our President. There is not, I am quite sure, a single person in this room who is not delighted and proud to see him where he is. I cannot say that he is there without some difficulty on our part, but there he is, and we are very delighted and proud to see him there: emphatically the right man in the right place.

Addressing the President, Sir Aston continued: Sir, it is something more, I am afraid, than twenty years since I first had the pleasure of making your acquaintance. I was at that time Honorary Secretary to the Institute, and I was deputed by the Council to call upon you and ask if you would

kindly consent to be nominated on the Council. I went with a good deal of trepidation, for I understood you were a most inaccessible person, and that I should probably have great difficulty in getting into your presence. However, I did not find that was so, and directly I arrived I remember you offered me a cigarette. The next thing you did was to stoop down to the fire and pull out a burning log from your wood fire and offer me a light. Having got over the slight shock of this I found things went very well, and I broached my business to you. You at once said that that was not your line at all; that your partner Mr. Peto was exactly the man we wanted, and that he would fill the office very much better than you could. I was obliged to say that my instructions only extended to Mr. Ernest George, and that I hoped, therefore, that you would kindly consider our request; and so, after a time saying you "would ne'er consent, con-

sented." As I had not been Honorary Secretary very long, I went with considerable pride to the next Council meeting, and made the announcement that I had seen Mr. Ernest George and that he had agreed to be nominated to the Council. The Secretary at that time—not unwilling, I think, to get a rise out of his honorary colleagues—produced a letter from Mr. Ernest George which stated that he had been thinking the matter over and that he had come to the conclusion that he was quite unfitted for a seat on the Council, and that he must therefore withdraw his promise. That led to another interview at which all ended well. You became a member of the Council and one of the strongest pillars of the Institute, which, since that date, has been through some troublous times: and although you have always kept a certain position of aloofness in the little troubles that have sometimes disturbed the surface of our peace—as they are apt to do with most societies—we have always known that we should have you on the side of what was right and of what was beautiful, and what you considered to be best for the good of architecture. You have referred, Sir, to the pleasure, which I am sure you must have had, of scattering all over the United Kingdom so many beautiful homes. There has lately been in London an Ideal Home Exhibition: I was unable to go to it, but I could not help thinking, as you read your Address, that the most ideal exhibition of ideal homes would be a collection of your ideal *Georgian* homes! Another point where you have helped us very much, I think, is in the admission of ladies to the Institute. You were, I believe, the first, and the boldest, to take two lady pupils into your office. They became Associates of the Institute, and we gave them votes! I attribute it very much to your action that we are able to enjoy the presence of ladies here to-night without any fear of chains clanging and bells ringing, or any need of the protection of the police! That is no small benefit you have bestowed upon us. You will be rather glad, I think, to hear that I have now done my personal reminiscences—it is one of the penalties of greatness as a President of the Institute—but I will spare you more of them. Had you not been present I should like to have added a great deal more.

Your Address seems to me to have touched upon almost every point. I thought when I first heard it that it had touched upon all points, but there are one or two that it has not—ventilation and electric light I think both require a little more consideration by the Council.* Another matter I thought might have been touched upon is our new

premises. I expect this has not been mentioned because you have not at present any definite scheme to lay before us. It is not, I suppose, very pressing, but at the same time it is not a convenient arrangement that we should be meeting in the Library reading-room and stopping entirely the use of our library; it is not a convenient thing that our Secretary has no office, and that our staff is somewhat overcrowded; and it is not pleasant to us to have distinguished painters here whose works we are so proud to have and yet are only able to accommodate in so inadequate a manner.

Another matter touched upon was the Town Planning Bill, which is of the greatest possible importance. In England, however, people do not think these things are of importance until they become law and they begin to feel the effects of them when it is too late to get any alteration made. This Bill is a sort of dual Bill: it contains a Housing Bill and a Town Planning Bill, which is rather unfortunate, because it confuses the issues. At present the Bill is before the House of Commons, and, unfortunately, in the procedure through which it is passing the Institute has no opportunity of expressing its views upon it. This is very unfortunate. We can only make our views known through members of the House who happen to be members of the Standing Committee, and, in order to make our case as clearly as possible, we have reduced it to one point. Practically the whole question of town planning, as far as we can understand the Bill, is left in the hands of the Local Government Board, and any scheme for the extension of our towns will go to them. The Board would hold an inquiry before an inspector, and he would decide, as far as I understand it, whether it is desirable or not. Persons affected may appear before the inspector and give their reasons. All we ask is that the Institute may be recognised as a person affected—that is to say, that it should have the right, if it thinks improvement can be made in any scheme, to appear and state it. That seems to be extremely reasonable, and we hope that Mr. Burns, the President of the Local Government Board, will see his way to conceding this. We also hope that every member of the Institute who has any influence with members of that Committee will point out to them how reasonable a thing it is that we are asking, and ask them to support it.

Another matter referred to which naturally interests all of us is the matter of architectural education. We hear a great deal of old age pensions, but pensions for the young are really more useful in a way—at any rate, they are more hopeful and more interesting to initiate. The desire of us all is to give every young man an equality of opportunity, so that when he starts his work he may have had every opportunity to be as fully equipped as it is possible for us to make him. The Board of Education, you are pleased to say, Sir, has done a

* This observation was called forth by the peculiarly close and heated atmosphere due to the crowded meeting on Monday, and by the alarm caused by several of the electric copper-bowled lamps partly giving way during the President's Address, becoming lop-sided, and swinging violently over the heads of some of the audience.—ED.

great deal of good. We hope it has, but it has not done at present as much as we should like it to have done. The object of the Board is to co-ordinate the instruction given in various schools which are in existence, and to work together under one complete scheme as far as possible. We can hardly expect perhaps that that should happen all at once; and at present, as it appears to me, there is a tendency for each school to play rather more for its own hand, if I may say so, than for the general good of the scheme. That is quite natural on the part of the masters; the master is anxious and enthusiastic to make his own school the best, and complete; that we do not wonder at—we admire it—but we think that the managers of the various schools, the governors, or the governing body, should take a somewhat wider view and endeavour to work in with the general scheme by which students shall pass through from the lower to the higher grades, and so complete a definite scheme and provide an object for the young man to work for.

The Institute has always declined to be an educational body, probably quite rightly, and it does not do a very great deal for education beyond the encouragement given by their examinations. It gives £100 to the Architectural Association, which I think is very much appreciated; but if the Architectural Education Board had also a certain sum allotted to it which it could spend in accordance with the wishes of the Council it might be very helpful. I think also it would be a great help if our recognised schools, or the local recognised Universities, such as Liverpool and Manchester and others, were to have at least one Scholarship or Bursary offered to them from the Institute which would enable, say, the best men to come up to work in London for two or three years in some of the advanced or continuation schools when they have passed satisfactorily through the school in their own town. That would not be a very costly thing for the Institute. We are saving money, and, although, I suppose, our savings will partly go in premises, still, each generation should not do much more than pay its own way, and we should not, I think, save all our money for one special object.

I entirely agree, Sir, with your suggestion of the Institute at Rome. I need hardly say that if there is any proposal of such a scheme being carried through, I, for one, should be a most enthusiastic supporter, and, what is perhaps still more important, an enthusiastic subscriber towards making it, as far as one possibly could, a success. I think if we could bring these few men up through scholarships and bursaries to the Academy, and, finally, to compete for a *Prix de Rome* on the same system as is done in France, it would be an immense gain for us. With the great prizes that are already offered by the Academy, and our own prizes, there ought to be no difficulty in formulating some scheme

by which that might be carried out. I would like to go one step further and approach the Government with a view to seeing whether when a man has become so distinguished as to obtain these prizes, when he returns to this country they could not, at any rate, promise him employment in some Works Department—possibly, when the Royal Commission has taken over our historic buildings, to do as they do in France, give him charge of one of the buildings. This would not be an expensive thing, but it would give him a little position, and breathing time while he is getting a practice for himself. I think the Government would be gainers, and so would architecture. That, again, would merely be carrying out the scheme which has worked so well for so many years in France.

With regard to the Royal Academy, I may mention—I, of course, have no right whatever to speak for them, but I can say this—that I know that the Academy have their schools very much at heart, they are determined to make them as good as they possibly can and to keep them up to a high level, and I am quite sure that any proposals that came from the Institute to the Royal Academy would receive sympathy and consideration.

Ladies and Gentlemen, I hope I have not overstepped the limits in these remarks, but they are matters which we are all deeply interested in, and I have only again to thank you, Sir, for your most excellent and practical Address, which has dealt with matters which we are all immediately interested in and dealt with them in a very illuminating way. I beg, therefore, to propose a most hearty vote of thanks to you for your delightful Address.

MR. REGINALD BLOMFIELD, A.R.A. [F] : Mr. President, Ladies and Gentlemen,—I have been commissioned to second this vote of thanks. I need hardly say it is a great honour, but it is rather an awkward one, because I am not, like my friend Sir Aston Webb, an old hand at business of this kind. Mr. Ernest Newton here has just told me a story about a stoker who had to return thanks to the Chairman of a Meeting, who happened to be a Director, and he said “If I abuse this man he won’t like it; if I flatter him he won’t like it; if I say what I think, I shall get the sack.” Ladies and Gentlemen, I do not think I shall get the sack from our President, because he is one of the kindest and most humane men that ever lived, and though, as I say, I am conscious of my inadequacy in seconding this vote of thanks, yet I have the more confidence in doing so, because when I endeavour to express the esteem and affection in which we all hold our President I am speaking from my heart.

Our President touched, as Sir Aston Webb said, upon nearly everything in his Address to-night, and it was characteristic of him that he found something to admire in nearly every manner that has been practised in architecture. I do not know

that some of our purists would absolutely endorse that, but I think he was right: I think it is in this sympathy with all good work, and in this alertness and observance of all that is good in every method of architecture, that our best chance lies. We have yet to build up again our tradition in the arts, and I think it is in this way that it may come about. Few of us feel satisfied with the present state of architecture in England, but, at all events, if we shall not see the Promised Land ourselves, the next generation may, and we hope they will practise an art which they understand, and that they will practise it for, and in presence of, a public which understands and loves it. Before we reach that happy state of affairs there is a very long lee-way to be made up. In the first place, there is this great public to be educated. That is a very large order indeed, and I am afraid beyond any of us, but what we can do is to do all we know in the education of our students.

I was very glad that the President referred to the attempt now being made to co-ordinate and organise the education of the architectural student. Sir Aston Webb, in his most interesting remarks, referred to certain possible hiatuses in the scheme, or, not so much in the scheme, as in the carrying of it out. He pointed out that the object of the Board of Architectural Education had been to co-ordinate so far as possible the various schools and appliances for education that now exist; and it is not only that—it is, beside the co-ordination, the subdivision of labour. What I think all of us who are interested in this matter of education are most anxious about is that each body should do that for which it is best adapted; that where it is a matter of preliminary education the body most capable of dealing with that should deal with it; and where it is a matter of advanced education, difficult design, and so on, the body, again, that is most competent to deal with that should deal with it. I think that is a very important point which we ought to bear in mind and develop so far as possible.

It seems to me that with regard to this question, and looking to the future—because we must look to the younger generation for the future of architecture—we have two or three things to do. In the first place we have to stir up their enthusiasm, and, in the second place, having stirred up their enthusiasm we have to see that there is adequate guidance of that enthusiasm, and that we do not have “the blind leading the blind”; that we have the very best and most competent opinion in this country instructing and educating our young men. That seems to me to be one of the

most vital points of the whole scheme of education which we here have been endeavouring to develop. There is a third point, and that is, that they should have something to aim at, some goal of their ambition. There are many of us here who had the great advantage of seeing M. Hulot's drawings and hearing the admirable address by M. Fougères on the advantages of the French method of training. There are advantages and disadvantages, but I think the most thoughtful observers of architecture amongst us are more or less convinced that the high level of attainment in French architecture is to a large extent due, not only to their training, but to the very high ideal of art that is held up before the students of the *Beaux-Arts*. That is a point to which we ought to devote our attention; our ideals are not always so high as they ought to be.

I think it would be a very great help if it was possible to start a *Prix de Rome*, or anything approximating to it, or that admirable association between painters, sculptors and architects that prevails amongst French students at the Villa Medici. It is one of the finest things in the world as a training for students. Unfortunately, in England we seem unable to start these things: we are as rich as France or Germany or America, but our statesmen have not yet learnt to regard the arts in this country as anything but a negligible quantity. No doubt they will learn in time, but we ourselves shall have to make the start. I believe if architects put their shoulders to the wheel they could do it. I have the highest possible opinion of the ability of architects, but not a very high one of their capacity to pull together. We now have a President whom we all honour and esteem, and I think, Sir, it would be a wonderful opportunity for us all to pull together to support this promising scheme. I have very great pleasure in seconding the vote of thanks to our President.

THE PRESIDENT: It has been delightful to me to hear the kind things that have been said, although I must not allow myself to think that they are more than kindly complimentary; at all events, they show your very good nature. I have listened with deep interest and appreciation to remarks that have been made developing the suggestions in my Address on the subject of education, and other matters that are of keen importance to us. I hope work may be done in the coming Session to give reality to some of our schemes for the general good. I thank you most heartily for the kind way in which the vote of thanks has been proposed and passed.

JOHN GIBSON. ARCHITECT.

Vice-President R.I.B.A. 1872-74. Royal Gold Medallist 1890.

A MEMOIR.

By S. FLINT CLARKSON [F.].

MUCH long white hair, an expressive face, with well-formed features, but so coloured as to suggest jaundice, a tall, upright figure perfectly dressed: this was the Vice-President, John Gibson, in a chair at a Meeting of the R.I.B.A. I was present then and noted with sympathy his absent-mindedness. A member, not aware that I knew the Vice-President well, whispered to me in some amusement, "Look at him, he doesn't know what to do next." Remarks which came to a sudden end were read, and there was a deprecatory wave of the hand on dropping the paper. This was typical. Although possessing great abilities, others valued him better than he valued himself. When it was suggested recently that I should write some notes on Mr. Gibson's life, character, and work, I realised that, although some of his work done during forty to fifty years is well remembered, in the twenty or more years since he retired from active practice his personality has become a memory, and that any notes should have been put forward earlier. Mr. A. Holbrow, now of 64 King's Road, Henley-on-Thames, from boyhood the confidential assistant and friend of Mr. Gibson, who died in his presence, kindly guided me to an account of him, prepared by Mr. A. E. Holbrow (Mr. Holbrow's son) of the Regent Street Polytechnic School of Architecture, and I have met with many other willing helpers, and noted with pleasure how highly Mr. Gibson was placed by everybody.

Of contrasts and contradictions the difficulty is to make a selection. Sydney Smith spoke of Hallam as "looking out of window, with his mouth full of cabbage and contradiction." Mr. Gibson (omitting the cabbage and adding an s) might have been similarly described. He was born out of the purple, but was often an honoured guest in great houses, as the intimate personal friend of eminent people. He amassed diligently full £60,000, but life was for him a burden, which he was quite ready to lay down. His humour was real but sardonic. Though a very kind man, there was always a bitterness, which gave a queer taste even to kind words. "I'm the person to complain," he said to an assistant who grumbled. "Indeed you are," remarked the young man after stating (in another room) what had happened. Slade, a clever young fellow, who had had health and died after a very short, severe illness, was greatly regretted by Mr. Gibson, who looked upon

him as one of the most promising young men who had worked under him. Slade, however, knew the ropes. "Now for a month of concentrated Gibson" expressed the heroic resolution with which he cheerfully began a special work. *Bonhomie* and comradeship were striven for but not often attained. Mr. Macvicar Anderson, in speaking at the Institute, referred genially to Mr. Gibson's power of attaching people to himself, remarking that Colonel North, of Wroxton Abbey, always spoke of him with real affection. From many others there is testimony of his personal charm. Mr. C. Barry spoke of a friendship which had lasted fifty years, and added that "all those who have had the privilege of knowing Mr. Gibson cannot fail to have loved him." Mrs. Lucy, the great lady at Charlecote, writing of the church in Charlecote Park, stated: ". . . The architect was Mr. Gibson, of Westminster, who caught all my ideas and embodied them, and was so kind; never thought of any trouble I gave him, and I fear I gave him a good deal. . . . To Mr. Gibson I shall ever feel a debt of gratitude," &c. "He was so kind," said recently to me a London architect, now in good practice, who was at one time an assistant in Mr. Gibson's office, "he went out of his way to keep me supplied with work when I was starting for myself," &c.

Mr. Gibson was born at Castle Bromwich, near Birmingham, 2nd June 1817, his father being a well-to-do farmer and breeder of horses. He had a fair education at King Edward's Grammar School at Birmingham. The connection with Warwickshire was strong throughout his career, a good deal of important work being done in that county—for instance, at Charlecote, Warwick, Combroke, Compton Verney, Myton, Woodcote, Guy's Cliff, Milverton, &c. He had been articled as pupil to Mr. Hansom, architect of the Town Hall, Birmingham, &c.: but as Mr. Hansom could not go on, Gibson, aged about nineteen, came to London with his father on 23rd June 1836, by the "Greyhound Coach" in twelve hours from Birmingham, stayed at the "Bull and Mouth" Hotel in St. Martin's-le-Grand (now pulled down for the Post Office Buildings, the French church being removed at the same time: it was the place where Milo the Crotonian was honoured), and on the 25th there was an interview with Mr. (afterwards Sir Charles) Barry, and Gibson became his pupil at Foley Place.

The fire which destroyed the old Houses of Parliament took place 16th October 1834, and in 1835 Mr. Barry was preparing for the rebuilding, so that Gibson came in for a share in that work from nearly the beginning. The first stone of the new building was laid 27th April 1840, the House of Lords being completed in 1847, and the Victoria Tower in 1857. He was, in 1836, the only pupil of Mr. Barry, and attended with his master to exhibit plans and model of the Houses of Parliament to William IV. and Queen Adelaide. When Mr. Barry went, in May 1830, on the expedition with De la Beche, Smith, and others, to select a good stone for the Houses of Parliament, Gibson, in whom confidence was placed, stayed at Foley Place as lieutenant. He gained credit by discovering a mistake in the setting out of an important portion of the new Houses of Parliament, the clerk of works being discharged in consequence. Afterwards there were in Mr. Barry's office at 32 Great George Street, Mr. R. R. Banks, A.R.I.B.A. 1847, F.R.I.B.A. 1869, died 1873 (Banks and Barry); A. Welby Pugin, J. Murray, G. Somers Clarke (died 1882), George Vulliamy (afterwards Superintending Architect M.B.W., A.R.I.B.A. 1838, F.R.I.B.A. 1856, died 1886, aged 69), W. H. Brakspear (later of Manchester, died 1898, aged 79), Charles Ainslie (died 1863), &c. There was chumminess in the office and through life with many, Mr. Brakspear for instance, whose son* was as much a subject of interest to Mr. Gibson as if he had been his own.

Having won the competition for the National Bank of Scotland, Stock Exchange, &c., at Glasgow, for which he was appointed architect, he left Mr. Barry on 1st November 1844, after about nine

years' service: they remained firm friends always. The building at Glasgow was described in detail by Mr. Brakspear in the R.I.B.A. JOURNAL of 5th January 1893. The offices and residence were at No. 6 Park Street (now Queen Anne's Gate), Westminster, for a number of years. In 1860 a move was made to No. 13 Great Queen Street (now Old Queen Street), the remainder of the Crown lease of Sir H. Keating, a deceased judge, having been taken over. Although the appearance of the front in Great Queen Street was very commonplace, there was a rare outlook (to the north unfortunately) over Birdcage Walk and St. James's Park. The entrance from Birdcage Walk was much used by Mr. Gibson, who liked to slip in and out without observation. He would go off without

warning, and on returning would make his presence known by a warning cough, called "Tremble, you fellows" by clerks. The house was a success, and much work was carried out in the office, which was the room on the ground floor next Great Queen Street: other rooms being, however, brought into use when needed. The private office was the large room with bay window, overlooking the park, &c., used also as a dining-room. The house, which was a goodly height before, was raised after Mr. Gibson's death, on 23rd December 1892, two stories being added.



BUST OF JOHN GIBSON.
Mr. Gibson's Bust placed on the wall of the room in which
the bust of Sir John Lubbock was placed.
Presented to the Institute by Mr. William Gibson [?]

He was elected Associate R.I.B.A. 5th February 1849, Fellow 24th January 1853, and was Member of the Council in 1855, 1856, 1865, 1866, and 1877 to 1885. Vice-President in 1872, 1873 and 1874. The most active time in his practice was between 1870 and 1880, from fifty-three to sixty-three years of age. After retiring to some extent about 1883, the remaining nine years or so of life were spent in the south of France and at 13 Great Queen Street. The presentation of the Royal Gold Medal in 1890, at the R.I.B.A., as a recognition of the high character of his executed works, was the crown of his life. There are reports of the address by Mr. Alfred Waterhouse, the President, and of speeches by Mr. C. Barry and Professor Aitchison in the R.I.B.A. JOURNAL, 19th June 1890. Mr. Alfred Waterhouse quoted from "one who knew him most intimately" thus: "He was on the most excellent and friendly terms with all his clients, and was always held in the highest esteem not only by them but by the whole

* "He continually advised me never to go into partnership but pay well for the best assistance procurable it wanted.

"He practised a trick upon me at times in writing that he had pleasure in lending me a book, and it, after a few weeks, I said anything about returning it, he would say, 'No non-sense, I gave it, and have your letter thanking me for it.'

"I have an interesting book of his sketches done in 1841 on a walking tour in Warwickshire in company with my father 'Mr. W. H. Brakspear'. (From a letter sent to me recently by Mr. Harold Brakspear.)

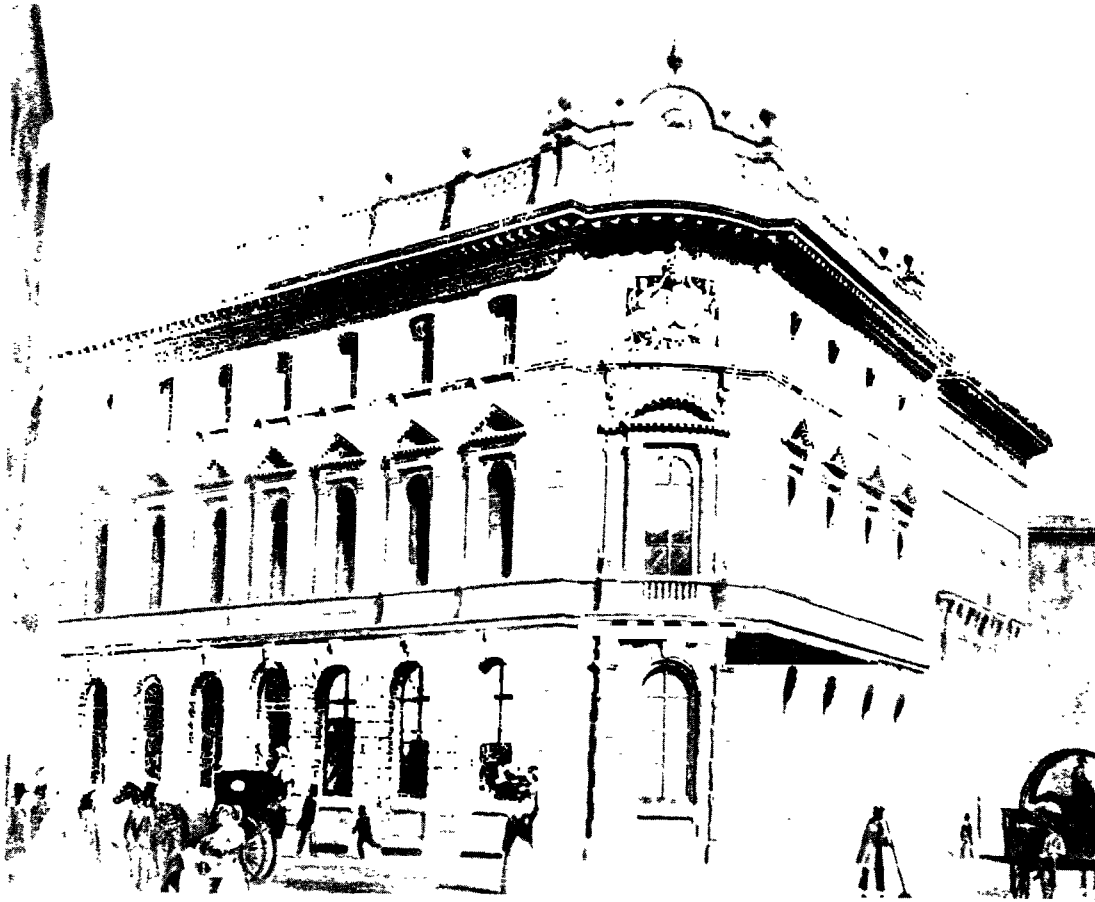
Mr. W. H. Brakspear retired from the profession and lived a quiet life at Consham (Wilts) for six years before 1898.

of his staff* and by those employed in executing his works." He did not give up work wholly; but after much of the practice of the profession which had occupied him so thoroughly had been given up, the solitude was not exhilarating.

A chill led to bronchitis and pleurisy, and the life which had been spent almost without serious illness was closed somewhat suddenly at the age of seventy-five (23rd December 1892). He was buried in Kensal Green Cemetery, near the Molyneux

designed by Mr. Brakspear, the son of his old friend and fellow pupil (in the office of Mr. C. Barry), is now well weathered; but the weathering has rather emphasized than, as might have been hoped, subdued the contrast of colour.

When it was modestly mentioned in conversation that Edward Gibbon had written feelingly with reference to the way in which he was affected by the completion of his great task, *The History of the Decline and Fall*, "It was on the day, or rather



OFFICES OF IMPERIAL INSURANCE COMPANY, NO. 10 OLD BROAD STREET, 1888 (FROM DRAWING) JOHN GIBSON, ARCHITECT.

Mausoleum designed by him, and probably the most remarkable in that place of expensive monuments. The memorial of Mr. Gibson at Kensal Green,

* "Mr. Gibson seldom gave the impression that he was satisfied with an assistant's work, however carefully details were drawn: he would ignore any efforts at original design and at once spot any practical omissions such as the omission of an air brick or of the writing of 'damp course.' It was difficult for him to appear pleased, but when one got accustomed to his peculiarities, they ceased to be annoying, as there was generally reason for his complaints." (From a letter sent to me recently.)

night, of 27th June 1787 that I wrote the last lines of the last page in a summer house in my garden . . . sober melancholy . . . I had taken an everlasting leave of an old and agreeable companion. . . ." Mr. Gibson stated that he was unaware of this, but that his feelings must be somewhat similar, and added with an expansion unusual with him:—"I feel, when the last has been done and the building goes into other people's charge, as a man must feel when a child has gone away from him."

A complete list of his works will probably never be made, but the following is a provisional list,

dealing mainly with new buildings—public buildings being in small-capitals, semi-public buildings in ordinary type, and other buildings in italics:—

NOTES OF SOME WORKS BETWEEN 1844 AND 1882

- 1844 National Bank of Scotland, Glasgow, won in competition.
- 1847 BLOOMSBURY CHAPEL, London, for Sir Morton Peto, &c.
- 1848 Offices of Imperial Insurance Company, Broad Street, London: won in competition.
- 1849 CHURCH AT CHARLOTTE PARK, Warwickshire. } All for
1852 } Also Works at *Charlote House* (in- } Mrs. Lucy
to } cluding New Wing for Mrs. Mary } and Mr. H.
1865 } Lucy's Residence), Lodges, Gates, } Spencer
} Terraces, Bridge, &c. } Lucy.
- 1852 Brunswick Buildings, New Street, Birmingham.
- 1853 *House, with Studio, at Highgate*, London, for Mr. F. R. Pickersgill, R.A.
In this year he made a long visit to Italy, including Rome, Naples, Venice, as also to Flanders, in company of Mr. Edward Barry. There was a great deal of travelling at home and abroad throughout his life.
- 1857 *Myton Chapel*, near Warwick, for Mr. T. Heath to his son in 1857. Additions for 1883.
- 1858 Remodelling of *Plus Power*, near Wrexham, for to Mr. T. L. Fitzhugh, also Iron Bridge, Entrance 1860 Lodge and Gates, &c.
- 1858 *Wrexham Abbey*, near Banbury, Oxfordshire: Restoration and New Wing, for Baroness North and 1860 Colonel North.
- 1859 BODEIWYDAN CHURCH, near St. Asaph, N. Wales, to for Lady Willoughby de Broke. Church consecrated 23rd August 1860.
- 1861 *Woodgate*, near Warwick, for Mr. H. C. Wise, M.P. for South Warwick.
- 1862 SHENSTONE CHURCH, near Lichfield, Staffordshire.
- 1863 *Compton Vicarage*, near Kineton, Warwickshire, for Lady Willoughby de Broke (for whom Combroke School House was carried out in 1855, COMBROKE CHURCH in 1865, and LIGHTON CHURCH in 1874).
- 1864 Beginning of Bank Work.
- " National Provincial Bank of England, South Molton and Tamworth Branches.
- " Restoration of CHURCH AT SPOKE-HY-NANT, Suffolk.
- 1865 Commencement of the Head Offices of the N.P.B.E. (established 1833), 112 Bishopsgate Street, City. UNITARIAN CHURCH, TOLMORLEN, for the Fielden family: (several members of this family employed Mr. Gibson largely).
- 1866 N.P.B.E., Salisbury Branch.
- " *Molyneux Mausoleum* in Kensal Green Cemetery. (Mr. Molyneux was at one time H.M. Consul to the State of Georgia.)
- Extensive additions and alterations (at various dates to 1868) to residence, and remodelling of gardens, &c., at Bodorgan, Anglesea, for O. F. Meyrick, Esq. The gardens are shown to the public as the finest in Anglesea.
- 1866 *Dobnald Castle*, Todmorden, Lancashire, for Mr. to John Fielden.
- 1868 N.P.B.E., Southampton Branch.
- 1868 N.P.B.E., Birmingham Branch.
- " N.P.B.E., Manchester Branch (not the existing Bank, of which Mr. A. Waterhouse R.A. was the Architect).

- 1870 TOWN HALL, TOLMORLEN. The statue of Joshua Fielden or Oldham was by Mr. Gibson's friend, J. Foley, R.A.
- 1871 Work at *Co's Club*, Warwick, for Lady Betty Percy, Entrance Steps, Balustrading, &c. In 1879 *Old Molyneux Terrace* was carried out for Lady Percy.
- " N.P.B.E., Gateshead Branch.
- " N.P.B.E., Middlesbrough Branch.
- " *North's Property*, Red Hill, for Mr. Joshua Fielden, M.P.; a large residence, bought in 1867, remodelled and added to.
- 1872 N.P.B.E., Newcastle-on-Tyne Branch (since altered and enlarged by Mr. Gwyther).
- " N.P.B.E., Piccadilly Branch (now Slater's Restaurant). The Architect of the existing Bank in Piccadilly was Mr. A. Waterhouse.
- 1873 Imberhome House, near East Grinstead, for Mr. T. Campbell, M.P.
- 1874 N.P.B.E., Stockton Branch.
- 1875 City Bank, Leicester, for Messrs. Milford, Snow & Co.
- 1876 N.P.B.E., Durham Branch.
- " N.P.B.E., Wrexham Branch.
- " N.P.B.E., Sunderland Branch.
- " S.P.C.K., Northumberland Avenue (the first building erected in Northumberland Avenue). (Site cost £40,000; Foundations £20,000; total cost, £220,000; comprises in addition to what is at once visible Board and Committee rooms, rooms for large clerical staff, and a wholesale department in the rear.)
- 1878 Child's Bank, Temple Bar.
- 1881 N.P.B.E., Baker Street, W., Branch.
- " N.P.B.E., South Kensington Branch (88 Cromwell Road).
- 1883 Banking Premises at Lincoln, for Messrs. Smith, Ellison & Co. (in connection with Stone Bow).
- 1890 His last work was the Tower to BISHAM CHURCH, near Wrexham, for Mr. T. L. Fitzhugh; the Church having been built in 1873. His last sketch was for the Mansfield stone Cross for the annual; as my informant writes, "an appropriate termination for an artist's life."

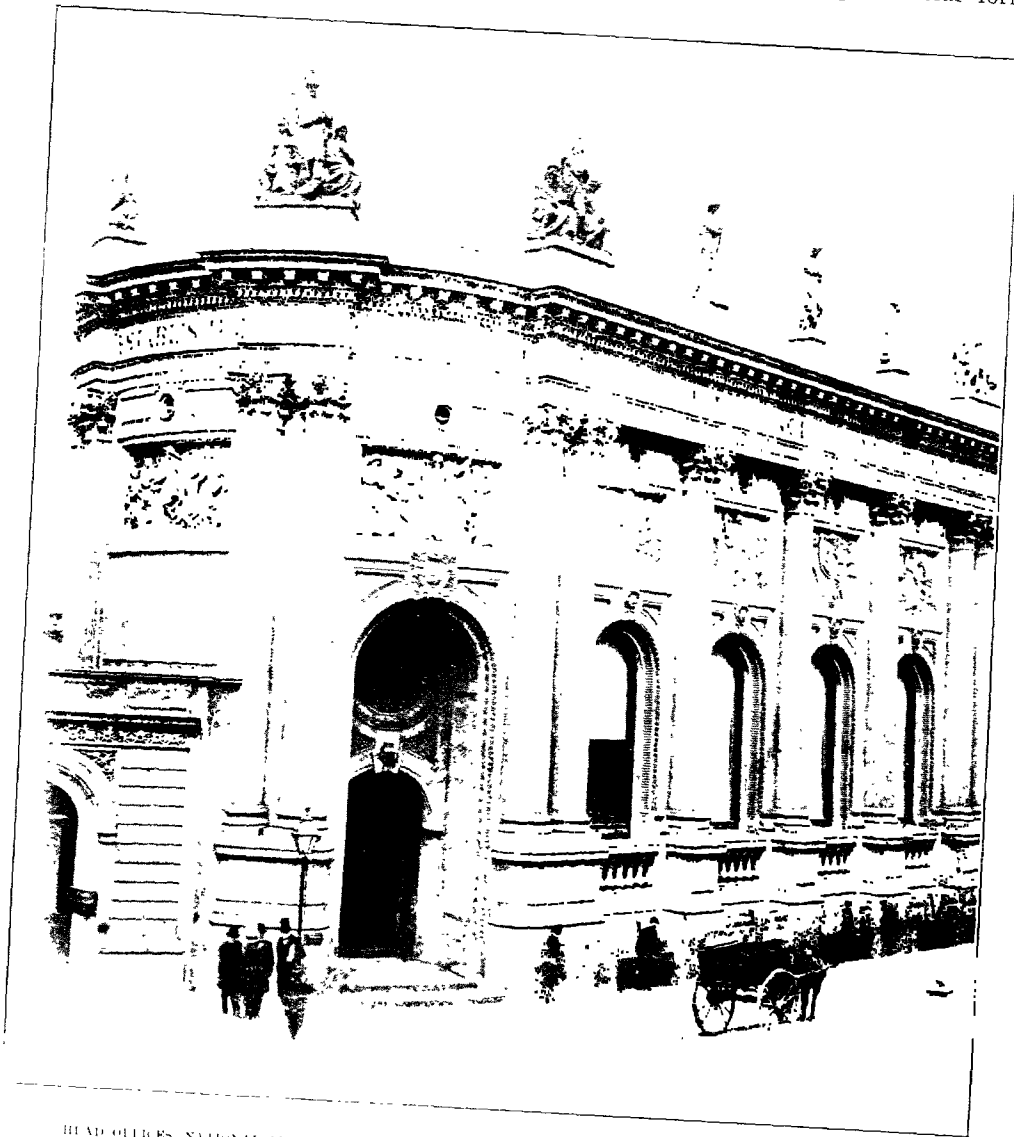
The following is a list, arranged alphabetically, of buildings, over forty in number, for the National Provincial Bank of England, dealt with by Mr. Gibson between 1864 and 1881:—Birmingham, Blandford, Bromyard, Bulth, Buay St. Edmund's, Cheltenham, Chester, Crickhowell, Deal, Dover, Durham, Gateshead, Gloucester, Hanley, Ipswich, Ledbury, Lichfield, Llandudno, London—Head Office, 112 Bishopsgate Street, E.C.; London Branches—Piccadilly, Baker Street, Kensington (88 Cromwell Road); Lowestoft, Manchester, Middlesbrough, Newcastle-under-Lyne, Newcastle, Peterborough, Poole, Portsea, Rugby, Rugeley, Ryde, Salisbury, Shrewsbury, South Molton, Southampton, Stockton, Stoke-on-Trent, Stone, Sunderland, Tamworth, Tiverton, Totnes, Worcester, Wrexham; and there were others of which no accurate record has reached me.

Mr. Gibson ceased after about 1883 to practise largely. Mr. C. R. Gribble took up his work at the National Provincial Bank of England, but there was no formal retiring from practice: he was working on details for the tower of Bisham Church, near Wrexham, erected by Mr. T. L. Fitzhugh, at the time of his fatal illness in December 1892.

Plans were kept extremely simple: "Get walls straight through, they look prettier on plan" was his quaint way of saying that if the plan can be

readily followed on paper, it will also be as readily understood by those who use the building. It is no compliment to the architect of a very large modern building that frequenters of it often state that, after attending there daily for years, they do not know the way about it. He said to me once,

Northumberland Avenue, all by Mr. Gibson, have queerly shaped sites, but are some of the most successful modern buildings at street corners. Although rectangles seemed to him proper things to start with, in order to get simplicity and dignity, there was real hking for other geometrical forms. "A



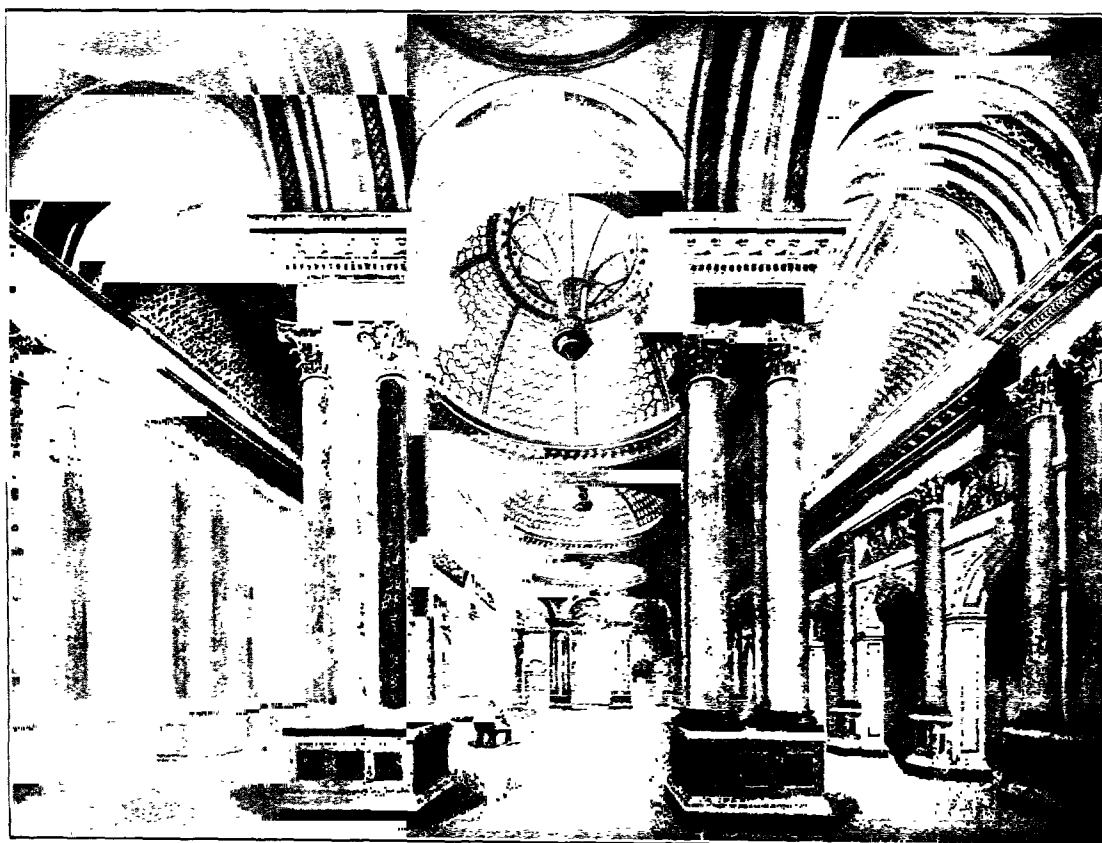
HEAD OFFICE, NATIONAL PROVINCIAL BANK OF ENGLAND, 112 BISHOPSGATE STREET (LONDON), 1895, &c.
JOHN GIBSON, ARCHITECT.

as if in anguish:—"It seems my fate to have the awkwardest sites to deal with." When a site came in the form of a queerly shaped chunk of land at a corner, parts of circles were resorted to as a means of bringing together sides at odd angles. The Birmingham branch, also the head office of the National Provincial Bank of England, the S.P.C.K.,

circle is such a comfortable figure," was his way of stating that curved forms will fit without discords among straight lines, whether regularly placed or otherwise. By a judicious use of circular domes and arches and by splitting of differences the irregularities in the shape of the site at the south end of the head office of the National Provincial Bank of

England have been so concealed that an ordinary observer does not notice that great difficulties have been surmounted. "*Ars est celare artem.*" not expressed, but always in mind, led to infinite painstaking. Little work of any date can have been better reasoned than Mr. Gibson's. "That is the line to make powerful," he said, in addressing his boots, when a design was being worked at of windows with semi-circular heads and an angle doorway belonging to them, but required to assert itself strongly. It was more than a mere phrase

He was the personal friend of many artists, such as J. Foley the sculptor. For F. R. Pickersgill, T. Faed, and W. C. T. Dobson he designed and carried out buildings. J. F. Lewis, Vicat Cole, J. C. Hook and W. P. Frith may also be named among painter friends. John Hancock, a man of real genius, modelled some of the panels, &c., in the N.P.B.E. front in Bishopsgate Street, being selected for the work by Mr. Gibson. His "*Allegro*" and "*Penseroso*" and the Art Union engraving of "*The Entry into Jerusalem*," as well as many



HEAD OFFICES, NATIONAL PROVINCIAL BANK OF ENGLAND, 112 BISHOPSGATE STREET INTERIOR OF BANKING LOBBY
1865 A.C. JOHN GIBSON, ARCHITECT

that in suave and polished work of Modern Renaissance refinements in proportions and details may be purely intellectual exercises, and thus ends in themselves. "Scrape, Scratch and Scrub 'em" was the jocular name of an imaginary firm occupying his master's office. The lesson taught by Sir C. Barry's practice: "Start with an idea and realise it in the end as nearly as you can," was thoroughly learnt and then practised by pupil and assistant.

Sculpture of a high class, in combination with his architecture, was always in Mr. Gibson's mind.

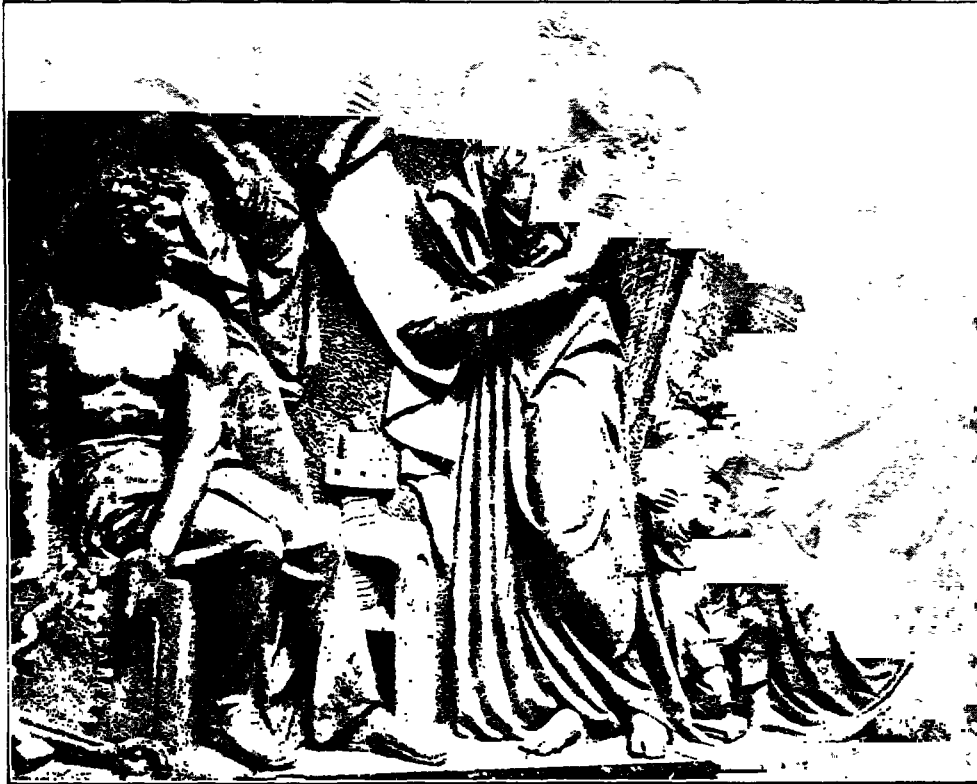
other works, had been properly appreciated. About 1866 the man was going hopelessly to ruin though the sculptor retained his powers: "Poor fellow!" said Mr. Gibson in real sorrow, and got for him this fresh opportunity, which, however, did not improve things permanently. Mr. F. R. Pickersgill gave suggestions and made sketches under Mr. Gibson's influence. Mr. J. Underwood (then of Camden Town) was the man of business in the execution of the sculpture. When J. Hancock inherited money from his uncle, whose monument is at Kensal Green Cemetery, bearing an appreciative

epitaph,* he went from bad to worse, till at last he became helpless, and was drawn about in a bath-chair. H. Bursill modelled some of the large figures which cut against the sky in Bishop-gate Street. He was recommended by Mr. Gibson to Mr. W. Haywood, and modelled the bronze figures on the bridge of Holborn Viaduct, but finished with a melancholy suicide.

The Molyneux Mausoleum in Kensal Green Cemetery, including marble, granite, carving and

has suffered sadly from the original pyramidal marble top having been taken down.

For *figure and architectural decoration* three generations of Mabey's worked under Mr. Gibson. The grandfather, James Mabey, was engaged by Mr. (afterwards Sir Charles) Barry *inter alia* upon models to a scale of 10 ft. to an inch throughout the building of the Houses of Parliament in "the forties." His son, C. H. Mabey, was also engaged on the Houses of Parliament, and afterwards for



"SCIENCE," INTERIOR PANEL, HEAD OFFICES, NATIONAL PROVINCIAL BANK OF ENGLAND, 1863, &c. JOHN GIBSON, ARCHITECT.

sculpture, was also undertaken by J. Underwood. It has recently been "done up" by Mr. Lander, but

* This epitaph is worth repeating. —

" THOMAS HANCOCK
THE INVENTOR AND FOUNDER
OF THE INDIA RUBBER MANUFACTURE

DIED 26TH MARCH, 1865, AGED 79.
MOST DEEPLY LAMENTED BY HIS ADOPTED FAMILY
THE 9 CHILDREN OF HIS BROTHER JOHN,
TOWARDS WHOM HE ACTED THE PART OF A FATHER
FOR 30 YEARS."
&c., &c., &c.

John Hancock, the sculptor, was one of the nine. Mr. Gibson received appreciative letters, &c., from the uncle, with thanks for help to his nephew.

Mr. Barry (the eldest son of Sir Charles), Edward Barry, &c. C. H. Mabey's son has made scale models of Tower, Kew, Putney, and Exeter Bridges for Sir J. Wolfe Barry, and is now doing work for him. The three Mabey's in association did much work under the direction of Mr. Gibson and many others. Figure panels and groups of sculpture were executed by them for the Head Offices of the N.P.B.E., also sculpture at Todmorden Town Hall (interior and exterior), at Child's Bank, and at the S.P.C.K. &c., as well as reredoses in churches, &c. The present Mr. Charles Henry Mabey, of 150A, Vauxhall Bridge Road, S.W. (who did so much work for Mr. Devey), carried out the memorial to Mr. Gibson in Kensal Green Cemetery in 1893. The Colleys, also architectural carvers, did the

large Corinthian Portland Stone capitals at the head offices of the N.P.B.E. I call to mind the struggles with models, and previously to that the setting out of the large columns by the conchoid of Nicomedes which was always used in profiling shafts. Mr. Garland, a modeller of rare talent, was employed in ornamental plaster and other work, being kept to his work as far as possible with much pertinacity by Mr. Gibson. Tenderness for failings if associated with skill and natural powers was sometimes oddly shown. "Have

science was never thoroughly satisfied with this falsity. He remarked, referring to the use of a large Order in a facade: "I can never get the thing right without something of the sort." The result is to be seen in Child's Bank (1878), where large columns run through the first and second floors, and by them and the large cornice the whole building is brought into unity. The other method influenced designs of banks at Tamworth, Salisbury, Worcester, Baker Street, and many others. Such "Tall Order" examples as Piccadilly



"THE ARTIST" INTERIOR (FACILE HEAD OFFICE, NATIONAL PROGRESSIVE BANK OF ENGLAND, 1875-76, JOHN GIBSON, ARCHT.)

much patience with him, he has real feeling," he wrote to a hard-as-a-flint business-like man, who was general director, foreman, builder, and clerk of works rolled into one, on a public building; the man for whom tender treatment was suggested was an eccentric carver.

From 1844 to about 1870 it was Mr. Gibson's custom to treat each story of a building separately, not to group stories together. He, however, at last forced himself, somewhat reluctantly, to adopt the method by which the architects of the Roman Renaissance obtained dignity. It is to be feared, however, that his hypersensitive architectural con-

(1872) and Sunderland (1876) group with Todmorden Town Hall (1870), but that is a real, not a semi-public, building, such as a bank or insurance office. The south portion of the head office of the N.P.B.E. was really a one-storied building, the large "Order" outside corresponding with the arrangement of the interior.

Although often spoken lightly of by others as work of supererogation, great pains were taken by Mr. Gibson to obtain complete returns for string, cornice, &c., within frontages—the loss in apparent frontage having, as he thought, sufficient compensations.



"DANCING." DANCING ROOM FANCIES. HEAD OFFICES, NATIONAL PROVINCIAL BANK OF ENGLAND. 1865. A.C. JOHN GIBSON, ARCHITECT.

At the premises of the Institute, 9 Conduit Street, there is a full-size portrait bust of Mr. Gibson, of which a photograph is given on page 14, executed in marble by J. Underwood after a model made in 1868 by H. Bursill. It was presented to the Institute by Mr. William Glover, architect, of Newcastle, in 1904. Mr. Underwood wished to present the bust to Mr. Gibson, who, however, declined the gift, writing that he did not relish "the idea of sitting in a room with a life-like presentment of himself." The bust was exhibited at the Royal Academy shortly after its execution, and was greeted by a flippant onlooker somewhat irreverently, the expression not being jocund. A photographic portrait of him, taken in the drawing-room at 13 Great Queen Street by Mr. S. Brakspear about 1891, shows an appearance almost unchanged from that of the portrait bust made more than twenty years before. Except as to colour of face and hair, there was indeed very little change in appearance observed by me during thirty to forty years.

A building person on being told that guard-bars to windows would not suit Mr. Gibson if more than $4\frac{1}{2}$ inches apart in the clear, as he thought boys might otherwise get through, remarked testily, "then they must be of his sort"; in figure was, of course, meant, but it might well have referred to the fact that meat and drink were taken very sparingly. There was total abstinence from tobacco in all forms. Symposia for old friends, held at intervals in the large dining-room at 13 Great Queen Street, occupied long evenings, a large pipe being placed at the side of the host, not for use, but as a sign of amity for smokers.

Always full of cares and general regrets, suffering from nerves, a solitary in crowds, well-to-do but hardly conscious of it, it was not surprising that "studies in Gibson" were spoken of. He, however, steered an even course and always seemed to the world merely a prosperous gentleman rewarded as he deserved.

An architect friend, well acquainted with Mr.



"SMILING." HEAD OFFICES, NATIONAL PROVINCIAL BANK OF ENGLAND. 1865. A.C. JOHN GIBSON, ARCHITECT.

Gibson's work, wrote to me thus:— "Powerful grasp of plan and design generally—reticence, perfect dignity, great refinement of detail," and thus well expressed in a condensed way my own feelings with respect to my old master in architecture.

SUPPLEMENT.

The following supplementary notes have been put together with the feeling that the personal equation is very important and that many would more thoroughly appreciate Mr. Gibson's work if they knew the manner of man he was.

A leading critic wrote of a large building by Mr. Gibson: "It reminds one of the Academic graces of Soane, it is so evenly smoothed and polished." Intense, persistent, personal labour, in the design and execution of works, became habitual. There were no "ghosts" for anything. When talking of qualifications and requirements before I entered his office, he said: "I don't want anyone to design for me: I make my own designs." The suspicion of "ghostliness" was, indeed, avoided like poison. Having worked so long with the file (*limæ labor*) there were rewards at times of pleasant inspiration and rapid production, although progress was commonly anything but rapid. "I never did anything so good in so little time," was casually remarked when a detail was made for the very original pendant sunburners in the centres of the domes of the banking room at the head offices of the N.P.B.E. (now taken away for the electric light). "Your work has occupied me lately, sleeping and waking," was written to an important personage (and was literally true). "Get out something and let me alter it; when I see something that won't do, I shall soon see something that will." The instructions were given exactly in those words. As there was dislike to starting on a clean sheet of paper, and everything had to be his own absolutely, other people's work became, at best, a kind of start, or a showing how not to do it. A well-laboured drawing would be ruthlessly marked over with a very soft "B" pencil. "I can't stand it any longer" was frequently the moan, expressed in words, which reached the ears of a principal assistant. Mr. C. R. Gribble, who knew well the length of Mr. Gibson's foot, chuckled as he related experiences with assistants.*

It is said that Mr. G. E. Street also frequently used large pieces of rubber, and cleaned sheets ready for his own work, which an aspiring young man had covered with (say) full-size details out of his own head. Although this seemed unap-

preciative there was no unkindness intended: he said in effect, "People employ me personally, not anyone else." Mr. Gibson had much the same feeling. Although an assistant's cap might run over, the work went steadily on with finish as to the finger-tips. A goodly number of drawings laid on his desk at night for scrutiny were ready for further work by assistants in the morning:—difficulties had been surmounted, moot points cleared up, and details supplied or modified. Some drawings must have had hours spent upon them. For such buildings as (to name one among many) the National Bank of Scotland the drawings were fearfully numerous. Special models were also made for decorative details. The accumulations, as years went on, became very burdensome, and a search for a specially well-laboured sheet was an ordeal. Most of the drawings and models were destroyed after Mr. Gibson's death.

Mr. Gibson believed that (especially in buildings in modern styles) every detail should be from one fount only. There were, however, necessarily drawbacks, especially as he grew older. It was always felt that every *impasse* could be got through somehow if sufficient pains were taken. "Let us get into difficulties and then get out of them." The walls of a mansion, designed by an amateur architect, were carried up to the roof level without the roof or the principal staircase being arranged. The task of completion came to Mr. Gibson, and he, roused as usual by special difficulties, dealt with them to everybody's satisfaction. Postponement of decision at early stages was always deliberate, with a heart for any fate. Contracts were entered into under which very large buildings were to be measured from time to time, and priced by schedule, in order that there might be the utmost possible liberty for alterations as work went on. Mr. Fergusson, in his books, insisted times and again that this should always be done. "Let me see it with a fresh eye" was a phrase frequently heard. What seemed irresolution run mad came from reluctance to make irrevocable resolutions too early. There were differences from the modern world in this, but it seemed a leaning to virtue's side. The usefulness of a lump sum contract as spur to contractor, and leading to savings, was, however, fully realised when reluctance to settling everything beforehand had been overcome.

In bold stone cornices no fillet was to be less than an inch in width. The size of a lead pencil was the least permissible size for a bead in profiling a plaster cornice. Such safeguards and "morbid sensitiveness as to mouldings" as he expressed it, pointed to great delicacy of detail. There was always the fear of being too bold; projections were constantly reduced in detailing. He was once reminded, but without effect, that there would be three breaks in 1½ inch in external stonework. The appearance of finish,

* "Any effort on the part of an assistant to alter regulation detail would be met with the remark, 'Don't invent these things,' and if the moulding of panelled doors was in question, he would add 'Write in, "All mouldings to be bladded to styles, not to panels."' (From a letter sent to me recently.)

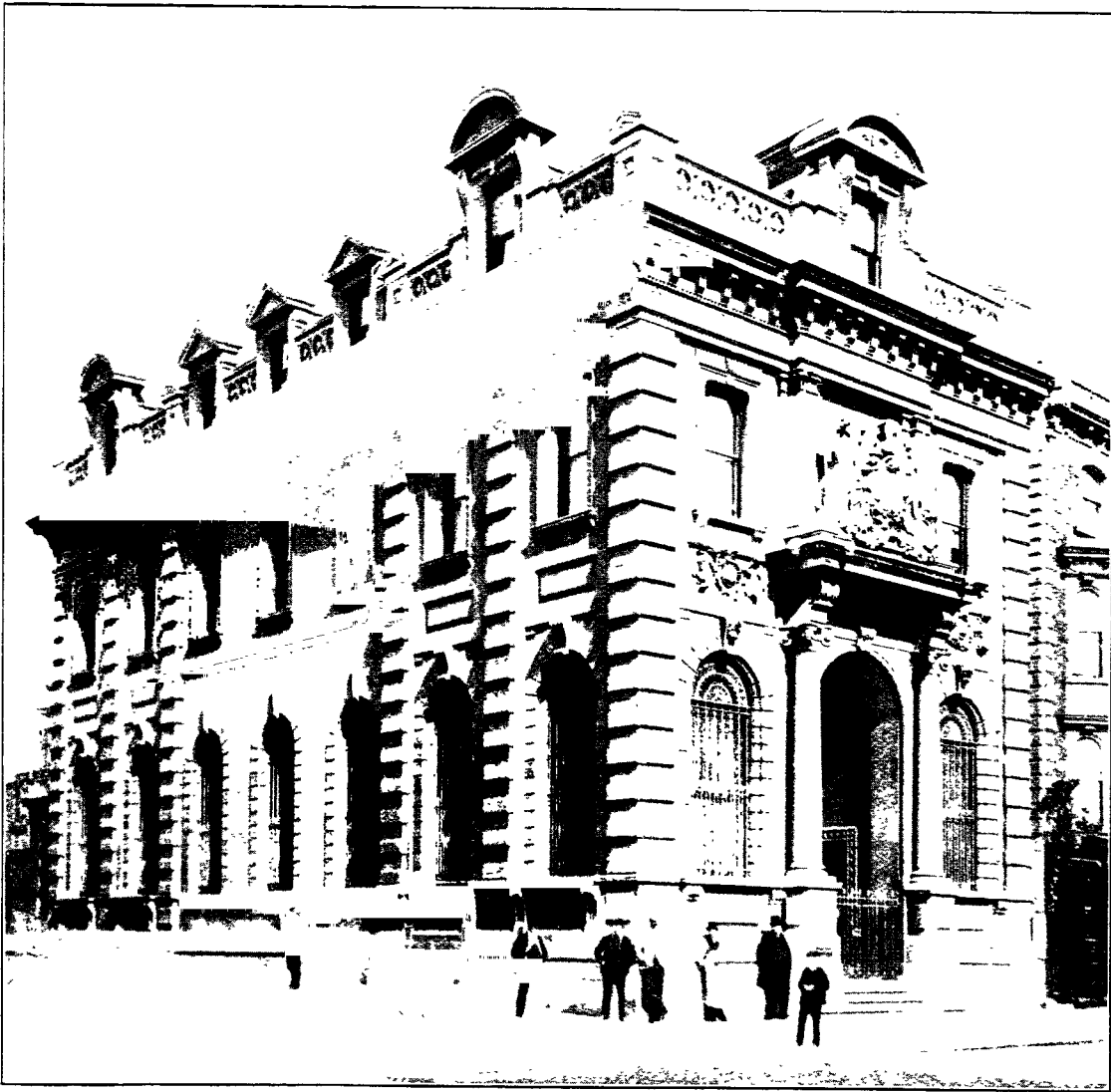
resulting from skill and painstaking, combined with the absence of innovations, rendered his buildings well fitted for business purposes; the intense respectability inspired confidence.

"The Orders" were not masters, but only useful guides. "To get a Doric expression" meant to do something which would be suitable with a Doric Order, and so of other proportions, where either strength, or much elegance, or extreme daintiness must be shown throughout. Though there might be no actual "Order," there must be the relation between solids and voids, which "an Order" would have called for, symmetry in important parts, and amenity throughout.

"Let it go, you will never make a beauty of it,"

was the counsel addressed to me regarding a detail, the wisdom of which I soon saw, as it is well to recognise soon when difficulty cannot be got over, and it costs less to throw up the sponge at an early stage.

Questions of "light and air," property rights, &c., were sources of infinite worry. A little hut had been projected, long ago, from a neighbour's land upon the site on which an important building in the City of London was to be erected, and in designing the new building the principal room insisted upon colliding with the wicked projection. In the end a large payment was made and the hut removed, but not before many methods of using the site had been thought and drawn out. The truncation of the



BRANCH BANK, NATIONAL PROVINCIAL BANK OF ENGLAND, SOUTHAMPTON, 1867. JOHN GIBSON, ARCHITECT.

top of the back building of the head offices of the N.P.B.E., seen from the Fountain Court (next the City Club), was an instance of succumbing to circumstances—a kind of “these sons of Zeruiah were here also too many for me.”

Mr. Gibson's professional humour led to showing guard-bars on 1-inch scale plans, “so that they may not be forgotten.” No one could guess what would come next.

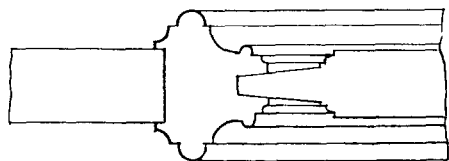
In all trades the best traditions were followed.



MEMBERS' STREET, FOR THE SOCIETY FOR PROMOTING CHRISTIANITY, 1876. JOHN GIBSON, ARCHT.

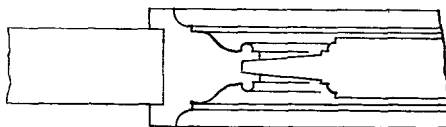
Apophyses and fillets adjoining them must always be parts of the shafts; a joint between apophyse and shaft would have been a death blow.* Fabulous pains were taken to obtain clean drips, throatings, &c., for strings, cornices, &c. Cornice stones must be weather jointed, and the strings and cornices must have lead coverings; all such requirements being as the everlasting hills. Ipplepen (Devonshire) was a very favourite marble. Mr. Field owned quarries, and took immense interest in his marble work. Blocks of marble for shafts of the sizes of those in the banking room of the N.P.B.E. were unusual in 1865, as they had a lower diameter of 1 foot $5\frac{1}{2}$ inches, and were Corinthian in one block for the whole height. Nowadays such columns would be nothing out of the common. Much Dove, Sienna, Statuary, Hopton Wood, &c., was also used on occasion. Whitbed Portland was the stone for the main front of the N.P.B.E., Bishopsgate Street. Tisbury stone, then a novelty in London, well liked for colour and texture, was used in the courtyard next the City Club and elsewhere. In the country local stones were always preferred. I remember going to Shrewsbury nearly fifty years ago with reference to a proposed building, and, on returning, praised Grinshill stone, which was accordingly used without stint. At a country bank there was delay, owing to the contractor's virtuous resolution, to make the Forest of Dean stone piers dividing large windows monoliths with quarry bedding. As things had gone far, he was not discouraged, albeit the private opinion was, "I should not object in any case to two or three stones of such a length with honest joints." In a large building cavities were arranged in large piers, which were about 5 feet thick, in order that a current of warmed air might be carried up under pressure behind the stonework. The object was to keep clear of efflorescence, and the experiment succeeded. The stonework was connected with brickwork in cement behind the cavities by large slate cramps; slate cramps were not used forty years ago, as they are now, but copper and iron.

Great importance was attached to any expression by a practical man. A joiner having said that he thought a better job could be made of solid bolecion mouldings if, instead of a flat face, there was an external moulding next stiles and rails, thus—



No. 1.

instead of thus—



No. 2.

all solid mouldings were thereafter shaped as No. 1, though No. 2 had been the rule before.

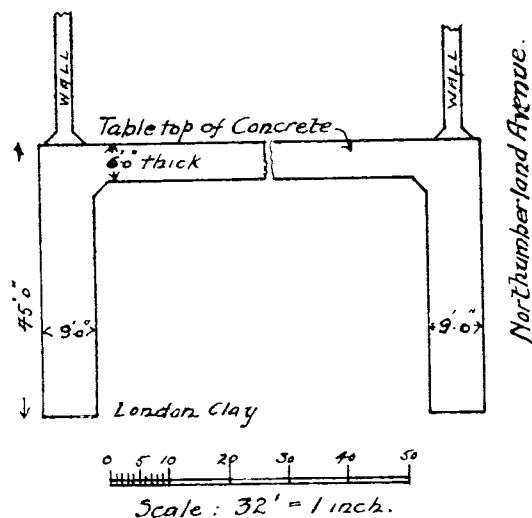
The smallest commission was attended to with the same ardour as the largest; size did not matter. There was always the same idea of duty, but there were seeming contradictions at times, *e.g.* his career opened by successes in competition; the National Bank of Scotland (a big work, comprising Bank, Stock Exchange, and Offices) was won when he was about twenty-seven years old, and a fine practice was slowly built up. When, however, the great long-looked for opportunity came in the form of a request that he would compete with other specially selected architects for the Courts of Justice, and he was also specially selected at the same time for the National Gallery competition, he had passed the stage when ambition could stir strongly enough; the years of labour would have involved too great personal effort: "it would turn every hair white" he said, and he declined both, although explaining by letter that he had given special attention to the subjects for years. He declined, about 1867, to take part in a select competition, although a fair remuneration was offered to competitors. I call to mind the surprise of the promoters who had thought their offer too good for anyone to decline. He was quite ready, as he wrote, to carry out the building, if so instructed, but declined struggling for employment. There was then no question of money, he had more than sufficient already, and a large practice; the battle was fairly won, but the victor was somewhat spent.

There were few novelties in construction. Tredgold laid it down, eighty years ago, that "an architect should understand geometry and mechanics, but it is dangerous for him to make either of them a favourite study, lest he trifle with his knowledge." I am afraid that Mr. Gibson had no favourite study, being mainly a worker, who, by effort, made laws for himself. Almost necessarily in so varied a practice special difficulties had to be dealt with. At Todmorden, the Town Hall (1870) was built over the stream which separates Yorkshire from Lancashire. The Gateshead branch of the N.P.B.E. (1871) was built over an old coal-pit. As running water was come upon under the site of the S.P.C.K. in Northumberland Avenue, walls of concrete 9 feet thick were carried down under the walls of the superstructure to the London clay,

* "Mr. Gibson was most particular about stone jointing: it was never left to the mason, but half-inch details were given with the joints shown in burnt sienna, and the depth

of each separate stone figured on its face. Details were never inked in but left in pencil, and always traced on linen, never on paper." (From a letter sent to me recently.)

which was reached at a great depth below the pavement in Northumberland Avenue, a table top of concrete 6 feet thick being put over the whole area of the building (see sketch section).



There was little appetite for literature, no hunger for science, or for anything abstract, and but little recreation. Shooting was taken up about 1866, and continued for some years without much success, though friends with large acres competed to afford him sport. "Masonry" also occupied some years; "Join a Lodge in which are important persons," was good advice given to me: he had done so himself, and rose to distinction in "The Prince of Wales' Lodge," of which King Edward VII., then Prince of Wales, was Master. Mr. Gibson succeeded Mr. F. P. Cockerell in office as G.S.W. He liked the title, and it was consequently put on the memorial at Kensal Green, thus: "Grand Superintendent of Works, 1870-82." He gave of his abundance to Masonic charities. Office was resigned when warned (at about sixty-five years of age) that the time for less work had come.

Some traits have thus been recorded, and many more might be. Special signs having been put against the principal dimensions on a setting-out plan, he said: "You spoil your drawing in that way." "Yes, but it makes it plain;" he summed up: "It's more than plain, it's ugly."

"People copy my details without warrant"—said in querulous complaint, almost comic, of plagiarists—referred to general details, and to such things as special forms of rustication, vermiculation, &c., in which he was a pioneer: windows of shop fronts kept out in centre but recessed at ends, as at the S.P.C.K. in Northumberland Avenue, &c. His original mind, while holding to many traditions, was moved by the impulse of the time towards new developments in details, but all was done with a sad sobriety. Taking up someone else's novelty was a

very temperate business: but, once done, it was done thoroughly. Boyd's flue plates, chequered plate glass, parquetry, &c., were novelties once—but we have supped full since then. A lady—a friend of early days—somewhat rashly quoted against him the opinion of a district surveyor, but was quickly pulled up with "but I examine the District Surveyors." He was from 1857 to 1862 a member of the Board of Examiners under Section XXXIII. of the Act of 1855. His self-assertion was taken nicely, such old friends were very ready to hear of merit recognised.

By self-assertion proper discipline was maintained and his strong conservatism helped him. The coming in of the memorandum form with printed heading, in which the conventional "Dear Sir" and "Your obliged servant" did not appear, but only a bare record or a brief question, was long regarded by Mr. Gibson with much disfavour, just as sticklers protested when wafers and then gummed envelopes took the place of sealing-wax, and when copying-ink and press supplanted copies by hand, which architects with well-to-do clients long kept to. The "memorandum form" was accepted, somewhat reluctantly, after a time by Mr. Gibson, as having the sanction of custom. Although for a long time assistants had had Saturday half-holidays elsewhere, there were none in my time at 13 Great Queen Street, nor later, as I am informed. Early processes for reproducing drawings (aniline process, &c.) were introduced by me under protest: the tone of the paper was not pleasing, and appropriate tinting of surfaces and walls was difficult. As he was a somewhat exquisite draughtsman himself, putting a drawing neatly on the paper and the way of making and finishing drawings were details in which he took much interest. A clean pencil drawing, with "the feeling" (as he called it) expressed by pencil shading, was perhaps best liked, though drawings might be carefully finished in black ink or Prout's or Indelible Brown.

Loyalty was an instinct, to "I did" (so and so) "at the Houses of Parliament" was added, "under the superintendence of Sir Charles Barry."

"They want me to design out of a book, but I mean to do what I think right. I will not do it to please them," were his remarks when a leading person recommended the Louvre as a model for a new building. He always maintained that a good architect should design a building to satisfy himself first of all. "Besides," he added, with shrewd look and a laugh, "we have not 30-foot storeys to deal with as at the Louvre." Afterwards the same leading person, being converted,

"The office hours were somewhat long—10 to 6 p.m.; no Saturday afternoons, and no going out or stopping work for lunch. Mr. Gibson took no lunch, so his clerk needed none. If you needed any lunch you had to eat it quickly in the office. However, he allowed a fortnight's holiday in the summer and 1 or 2 days at Christmas and Easter." (From a letter sent to me recently.)

said, "Ask what you think right, and you will not be denied;" notwithstanding that a much larger outlay had already been made than proposed at first. He had then no doubts that Mr. Gibson,

be" looked like a truism ready for apologising for some modern Renaissance work. In Mr. Gibson's case, though he invented the truism, the apology was but little needed, as he was always striving

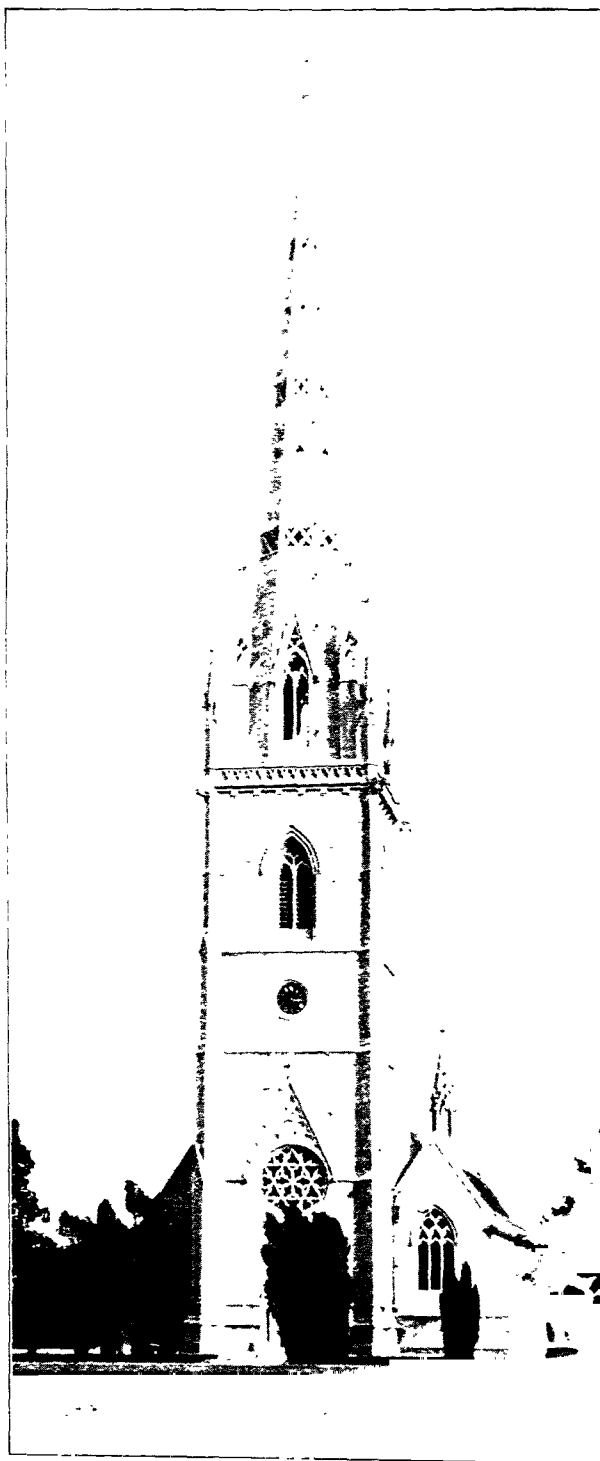


CHILD'S BANK, PEOPLE'S BANK: 1878. JOHN GIBSON, ARCHITECT.

who had dealt with things quite at first hand, should be encouraged to complete his work to his own mind.

"In architecture things are what they seem to

after truth; real marbles and not imitations, solid stuff and not boxed work, mouldings out of the solid for good doors, &c., &c. Some surprise was expressed when (say) four times as much was ex-

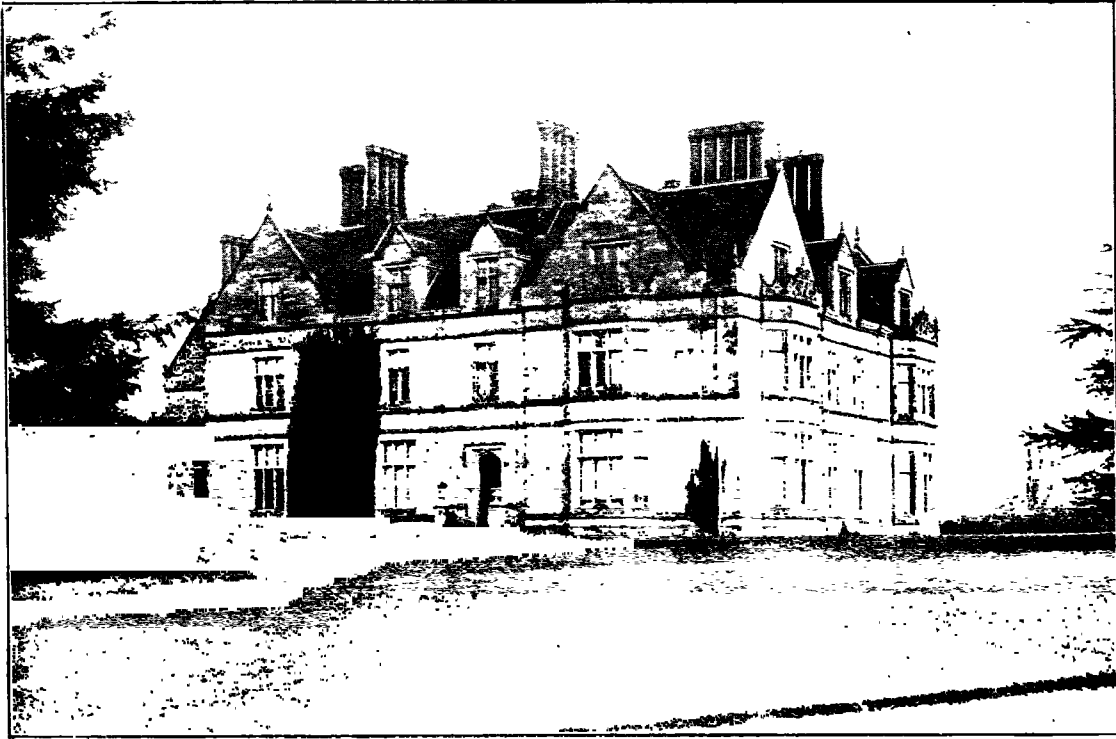


LLOFTWYDDAN CHURCH WEST END. 1856 TO 1860
JOHN GIPSON, ARCHT. R.

pended on solid marble for a chimney-piece as would have been spent on built-up thicknesses, but the surprise did not disturb him. Working for people with plenty of money may have perils for an architect, but will not, at any rate, make him feel pride that more than money's worth has been got for money. A "cutter" could not have felt and said, "Use plenty of solid stone, I want it to look and feel solid as it goes up." But this sort of thing was always done by Mr. Gibson when possible.

"My irritable temper, which makes me a nuisance to myself and everybody about me," was

An invitation for John Gibson (to a Lord Mayor's banquet, for instance, or the like public function) was returned as apparently intended for John Gibson, Sculptor and R.A., but when a fresh invitation came for the F.R.I.B.A. it was accepted. "It can't be intended for me, it's poetry" was all the appreciation shown towards a bardic compliment. "I'll see if I've a spare edition (of Burns), and think I shall give it to ye," were the scathing words of an enthusiastic Scot addressed to young Mr. Gibson, engaged upon the National Bank of Scotland at Glasgow. After brimming over with quotations from Burns, the Scot had pounced with



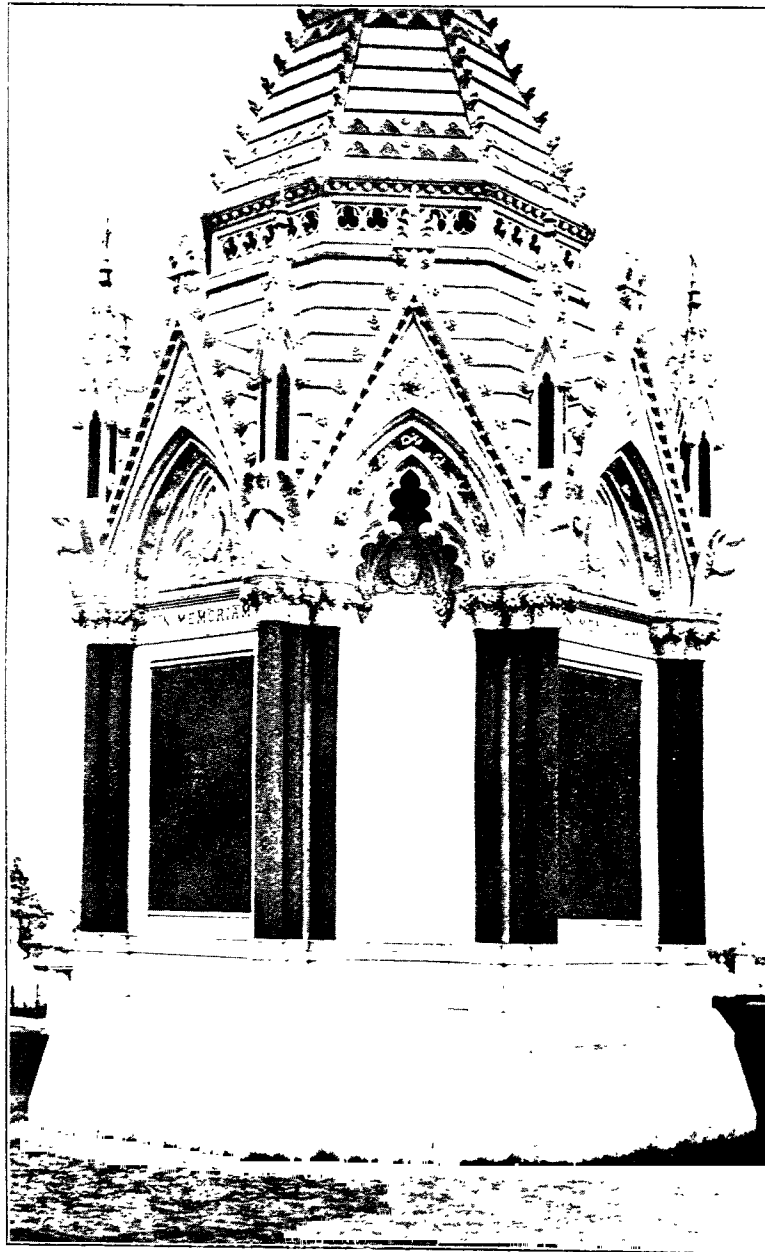
WOODCOTE, LEEK-WOOTTON, WARWICKSHIRE, FOR H. C. WISE, ESQ., M.P.: 1861. JOHN GIBSON, ARCHITECT.

amende honorable, and the discharge of some of the burden on his soul, made to me shortly before I left his office. Sometimes an assistant would grow restive. "There are hundreds of ways of doing that" was a favourite saying, but this being (for once in a way) taken in dudgeon, the retort was, "Yes, but I should like to know which you want in this case"; a retort naturally not well received, but a sketch was instantly made which got over the difficulty. Confident of readiness under pressure he said, "Leave that to me; don't waste time in fancy sketches," meaning something like: "If anyone fancies that he can hold the reins better than I, he is mistaken."

the question, "what edition do you use?" and received a tepid reply.

The shrinking from public appearances, &c., and the want of keen interest in the people and things of the ordinary world became more and more marked after about sixty-five years of age. "Give me a piece of paper, and I will write what I ought to say," was his odd response when his health was drunk at the public opening of an important building. He said to me: "They dug me out of my hole," referring to the R.I.B.A.

The rightness of eclecticism was an article of belief, and the almost universal practice during Mr. Gibson's most active years. Sir Charles Barry a



VICEROY MAUSOLEUM, RENSSELAER, 1867. JOHN GIBSON. A.C.T. 111

leader of the eclectic fashion, used refined Renaissance generally for civic and domestic buildings, later Gothic for ecclesiastical, and Tudor for buildings appealing to historical sentiment, such as Birmingham Grammar School, the Houses of Parliament, &c. His pupils went even beyond their leader; for instance, Mr. Gibson worked in Lombardic, Venetian Domestic, Decorated, Perpendicular, Tudor, and Elizabethan, as well as

in a pure Renaissance, which satisfied him best of all.

Mr. Gibson's buildings were the work of an architect pure and simple, who, not having aptitudes that way, did not lay himself out for surveying or general business. Business maxims were consequently few, but "Never confess that you are wrong" came out frequently, as valued result of experience. When applied to by a friend

as to architects putting their names on their buildings, he gave French and Italian precedents, although he did not do it himself. A local magnate recommended London chiefs "to employ Mr.——" (a local architect) "who knows his work." There may have been an eye to local business in this reflection on a Londoner. "I shall go on as if nothing of the kind had been sent," was Mr. Gibson's gentle comment.

I bought in 1893 guide books, mainly foreign, used by Mr. Gibson. Some have his favourite monogram and date of purchase on title-pages: some the full name, as he liked to sign it, with a whip-lash to carry the dot to the "i." The Murray's *Handbook for Visitors to Paris* (edition of 1864) has on the title-page, "To John Gibson, Esqre., in the hope that he will note down some of the mistakes in this book, for the benefit of E. H." This was Mr. Edward Hall, long sub-editor, under Mr. George Godwin, of *The Builder*, who made several journeys to Paris with Mr. Gibson, and was doubtless influenced by him a good deal. I fancy that the description of the Luxembourg Palace took tone from Mr. Gibson: as also that of the Chapelle Expiatoire, Rue d'Anjou St. Honoré: "The present chapel was . . . not finished till 1826. It is much admired, but it is too much in the semi-classic taste of the Restoration, and may be said to be gloomy without being grand. . . ."

In some of the guide books there are pencillings on margins, e.g. on page 68 of Murray's *North Wales*, 1861 edition. As his noteworthy church at Bodelwyddan was noticed in detail and described as "cruciform," which it was not, that word was crossed out. On the margin, opposite "at an expense of £60,000," was written "The church [Bodelwyddan] did not cost £30,000," showing thus pleasure in veracity, even when telling against himself.

There were batches of note books filled with facts in clear careful handwriting, some showing characteristic liking for moral maxims. He sketched assiduously good work of all periods in many countries with the neat clear touch of a very capable architectural draughtsman, but as the studies were only made to serve as helps for himself they were not shown, and only seen (by me, for instance) by accident.

As he longed for and was so well fitted for domestic society, his friends continued to hope that he would marry some time, even if late in life, but perhaps he knew his own character better than others. Some of his oddities were doubtless due to so much living with himself.

NOTES AS TO SOME OF MR. GIBSON'S ASSISTANTS.

Charles Risdon Gribble, born 1834, near Barnstaple; educated there; articled to Mr. Gould, architect, of Barnstaple; came to London 1854; was principal assistant to Mr. Gibson for about

five years; left his office in order to practise on his own account as architect, surveyor, and quantity surveyor. Great confidence being felt in him, he prepared quantities for a large number of Mr. Gibson's buildings, the connection lasting for more than thirty years; he also designed and carried out many buildings, among them being:—

Deutsche Bank, George Yard, Lombard Street.

Lambton's Bank, Sunderland.

Fenwick's Bank, Lincoln.

Residences at Putney, Wimbledon, &c.

After Mr. Gibson's resignation (about 1883), Mr. Gribble became architect for the National Provincial Bank of England, and designed and carried out branch banks at Gloucester, York, Hampstead, Deal, &c.

He lived for fifteen years in a house which he built for himself called "Plymtree," Upper Richmond Road, Putney.

The inscription on his tomb in Kensal Green Cemetery is:—

IN LOVING MEMORY OF
CHARLES RISDON GRIBBLE,
ARCHITECT,

WHO FELL ASLEEP MARCH 25TH, 1905,
AGED 69 YEARS.

Mr. Gribble was a very rapid and capable draughtsman, and much valued by Mr. Gibson on all grounds; he set up details at a great pace, showing just what Mr. Gibson liked as a start for his own work.

Edward Holmes, born 1826, pupil of Mr. Hellyer, of Ryde, assisted Mr. Brown, of Norwich, Mr. (afterwards Sir Charles) Barry, Mr. R. Jewell Withers as managing assistant (R. J. W. was a fellow pupil at Mr. Hellyer's), Mr. John Gibson at intervals for several years, as also other architects; afterwards was chief draughtsman at the School Board for London under Mr. E. R. Robson and Mr. T. J. Bailey; died 1894.

He painted well in water-colour; made perspectives for Mr. Gibson, Mr. Edward Barry, and many other architects.

Engravings were made from his drawings of parts of Houses of Parliament.

S. Flint Clarkson, pupil of Mr. Charles Ainslie (another pupil of Sir Charles Barry), was seven years in Mr. Gibson's office as principal assistant, leaving in 1867 on going into partnership with Mr. John Clarkson at No. 28 (late 36) Great Ormond Street, as an architect and surveyor; designed and carried out a large number of private and public buildings, including swimming bath, &c., for the Municipal Borough of Holborn, Limehouse Public Library, &c.

Joined the Architectural Association in 1860, Honorary Secretary 1872-1876, Vice-President 1876-1877, President 1879-1880.

Associate of the Royal Institute of British Architects 1869, F.R.I.B.A. 1885.

District Surveyor of North Chelsea 1886.

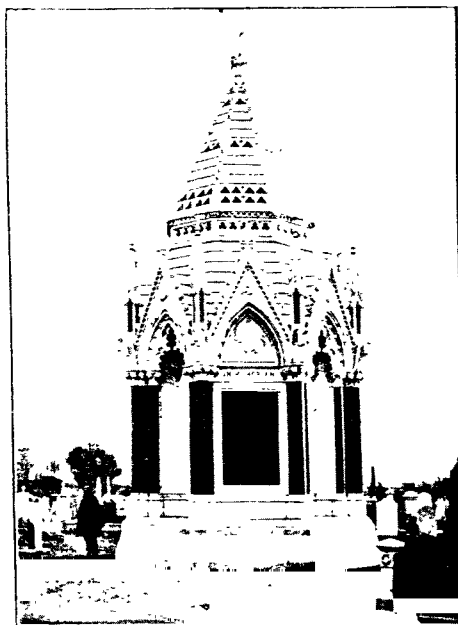
Retired from private practice and from Chelsea in 1903, on being appointed District Surveyor for the Royal Borough of Kensington, and has office at 17A Vicarage Gate, W., residing at 43 Holland Road, W.

George Michael Silley, now practising at 17 Craven Street, W.C., born 1843, served articles for four years from 1863 with Messrs. Habershon and Pite: was Mr. Gibson's principal assistant 1869 to 1873, left him to undertake private practice, having in 1873 gained a competition for a branch bank at Bath, for the Wilts and Dorset Banking Company. He has since acted as architect for that bank, having built or altered most of their numerous premises; designed and carried out St. Paul's

church and vicarage at Harringay, and numbers of other buildings. Mr. Silley wrote to me of Mr. Gibson thus:—

"He was most able and thorough at his work. He insisted upon all the details of his buildings being most carefully drawn and worked out, nothing sketchy or merely suggestive in the way of a detail ever passed his keen scrutiny, and I personally owe it to this care on his part, which at the time I thought most unnecessary, that I have had a certain measure of success with my own work.

"Personally, Mr. Gibson was very reticent and rather awe-inspiring to his clerks. . . . Notwithstanding peculiarities, he was a man for whom I had great respect, he was so strictly honourable and conscientious, generous in the way of salary, and gave me excellent advice when I left him to start on my own account, &c."



MOLYNEUX MAUSOLEUM, KENSAL GREEN, SIDE VIEW.
JOHN GIBSON, ARCHITECT.

NOTE.—Photographic originals of illustrations are by Mr. Brak-pear, and (except those on pp. 15 and 18 taken from actual work



9 CONDUIT STREET, LONDON W., 7th November 1928.

CHRONICLE.

The Opening Meeting.- Presentation of Mr. Belcher's Portrait.

There was a large and representative gathering of members and visitors, including several ladies, on the occasion of the Opening Meeting on Monday. Past Presidents were represented by Sir William Emerson [1899-1902], Sir Aston Webb, R.A. [1902-4], Mr. John Belcher, A.R.A. [1904-6], and Mr. Thos. E. Colcutt [1906-8]. Representatives of Allied Societies included Mr. Hippolyte J. Blanc, R.S.A., President of the Edinburgh Architectural Association; Mr. G. T. Brown, President of the Northern Architectural Association; and Mr. Paul Ogden, President of the Manchester Society of Architects. Members of the Royal Academy present, besides those already mentioned, were Sir Lawrence Alma-Tadema, O.M., R.A. [H.F.], Mr. Frank Dicksee, R.A. [H.A.], Mr. J. M. Swan, R.A., LL.D., and Mr. Reginald Blomfield, A.R.A. [F.]. The London County Council was represented in its newly elected member for Hampstead, Mr. Andrew T. Taylor, R.C.A. [F.].

The new President, Mr. Ernest George, had the heartiest and most cordial of greetings on taking the Chair. His Address was followed with manifest approval by the assembly, and was warmly applauded at its close.

The Opening Meeting was made the occasion of the presentation to the Institute of the portrait of Mr. John Belcher, A.R.A., *Past President*. The portrait, which was on view at the last Academy Exhibition, is the work of Mr. Frank Dicksee, R.A., and has been subscribed for by members. The formal business of the Meeting concluded, the President asked Mr. Colcutt to unveil the portrait.

Mr. THOMAS E. COLCUTT, *Past President*, addressing the Meeting, said that he had been requested by the subscribers to present to the Institute the portrait of their Past President, Mr. John Belcher, and he undertook the duty with a very great deal of pleasure. It would be remembered that he had had the honour, the Session before last, of presenting the Royal Gold Medal to

Mr. Belcher, and on that occasion he had expressed his admiration of Mr. Belcher's work, an admiration that he knew was shared by the whole of the profession. They were met that evening to do honour to Mr. Belcher, in a sense not so much for his architectural work, admirable as that had been, as for the duties he had performed as President of the Institute. Mr. Belcher had filled this office during the year of the International Congress of Architects; and besides his duties as President of the Institute, which were carried out with exceptional ability, he had had to work very strenuously during the whole of the Congress; and, as he had before remarked, he was sure that the Congress owed its success mainly through the efforts of its President, Mr. John Belcher. It was not necessary to dilate upon Mr. Belcher's work: they all knew its excellence, and how he had stamped his individuality on so many buildings in and about London. On the present occasion the principal interest was the portrait he was about to unveil. The Institute, he was sure, would feel grateful to the painter, Mr. Frank Dicksee, for this admirable work. He had had the pleasure of seeing the portrait, and, if he might be allowed to express an opinion, he thought it was not only an excellent portrait, but a very great work of art. They had the good fortune to possess in that room many portraits which would stand out in the future as being amongst the best works of art which had been executed, and he thought they would all agree that the work of Mr. Dicksee would take a high place among those portraits. On behalf of the subscribers he had to thank Mr. Dicksee, and to express to him their high appreciation of his work, and their gratitude that he had been able to undertake it.

The portrait having been unveiled and presented to view, the Meeting testified its appreciation of the work by hearty and prolonged applause.

The PRESIDENT, in formally accepting the portrait on behalf of the Institute, said he did so with grateful thanks. He felt that they had a very beautiful work added to their collection of choice things; it was a fitting memorial of a President who had worked splendidly for them and added to the prestige of the Institute he had served with such distinction.

Mr. FRANK DICKSEE, R.A., who rose at the invitation of the President, said he had to thank Mr. Colcutt for the very kind words he had used with regard to his efforts. It had been a very great pride and pleasure to him to be associated in such a matter with his old friend Mr. Belcher.

Royal Commission on Ancient Monuments.

The King has been pleased to appoint a Royal Commission to make an inventory of the Ancient and Historical Monuments and Constructions connected with or illustrative of the contemporary culture, civilisation, and conditions of life of the

people in England, excluding Monmouthshire, from the earliest times to the year 1700, and to specify those which seem most worthy of preservation."

The Commission is constituted as follows:—

The Right Hon. Lord Burghclere (Chairman).

The Right Hon. the Earl of Plymouth [H.A.].

The Right Hon. Viscount Dillon, F.S.A.

The Right Hon. Lord Balcarras, F.S.A. [H.A.].

Sir Henry Hoyle Howorth, K.C.I.E., D.C.L., F.R.S., F.S.A., President of the Royal Archaeological Institute.

Sir John Francis Fortescue Horner, K.C.V.O.

Mr. Emslie John Horniman, M.P.

Mr. Francis John Haverfield, LL.D., M.A., F.S.A., Camden Professor of Ancient History in the University of Oxford.

Mr. Leonard Stokes, Vice-President R.I.B.A.

Mr. James Fitzgerald, I.S.O., F.S.A., Assistant Secretary to H.M. Office of Works.

Mr. J. G. N. Clift, Hon. Secretary to the British Archaeological Association.

The Secretary of the Commission is Mr. George Herbert Duckworth, 35 Charles Street, Berkeley Square, W.

The full terms of reference, under the Royal Sign Manual dated 27th October, are given in the *London Gazette* as follows:—

And for the better enabling you to carry out the purposes of this Our Commission, We do by these Presents, authorise you to call in the aid and co-operation of owners of ancient monuments inviting them to assist you in furthering the objects of the Commission and to invite the possessors of such papers as you may deem it desirable to inspect to produce them before you.

And We do further give and grant unto you, or any three or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission and also to call for, have access to, and examine all such books, documents, registers, and records as may afford you the fullest information on the subject, and to inquire of and concerning the premises by all other lawful ways and means what-soever:

And We do by these Presents authorise and empower you, or any three or more of you, to visit and personally inspect such places as you may deem it expedient so to inspect for the more effectual carrying out of the purposes aforesaid:

And We do by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any three or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment:

And We do further ordain that you, or any three or more of you, have liberty to report your proceedings under this Our Commission from time to time if you shall judge it expedient so to do:

And Our further will and pleasure is that you do, with as little delay as possible, report to Us, under your hands and seals, or under the hands and seals of any three or more of you, your opinion upon the matters herein submitted for your consideration.

The Statutory Examinations.

Examinations of Candidates for the offices of District Surveyor under the London Building Act, and of Building Surveyor under Local Authorities, held by the Institute pursuant to Statute, took place on the 15th and 16th ult. Of the eleven candidates admitted, the following seven passed, and have been granted by the Council Certificates of Competency to act in the respective offices, viz.:—

For the Office of District Surveyor in London.

FREDERICK WILLIAM CHARLES BARKER, 98 Nevill Road, Stoke Newington, N.

ALFRED ERNEST BIGGS, 9 Stanhope Gardens, Ilford.

HENRY THOMAS BROMLEY, 45 Belmont Hill, Lee, S.E.

RICHARD THOMAS GROVE, Linchaden, Beaumont Road, Wimbledon Park, S.W.

GEORGE ALFRED TURNER, 179 Alford Road, N.

WILLIAM ERNEST WATSON, 53, 54 Chancery Lane, W.C.

Building Surveyor under Local Authorities.

GEORGE ARNALL, 153 St. John's Hill, London, S.W.

Sessional Papers.—Mr. Francis Swales.

Members will see by the brown card issued with the *KALENDAR* and by the Supplement to the current *JOURNAL* that the programme for the Session is now complete. Since the last notice two additional Papers have been arranged for—one by Mr. H. V. Lanchester, "Town and Country: Some Aspects of Town Planning," and a second by Mr. Francis Swales on "American Architecture." It may be of interest to mention that Mr. Swales is a nephew of Mr. Alfred Gilbert, R.A. [H.A.]. He was born in Canada, and studied for the profession of architecture at the Rochester (N.Y.) Athenaeum, at the Atelier Masqueray, New York, at Washington University, and at the Ecole des Beaux-Arts, Paris, where he was a pupil of Pascal. He carried off, among other prizes, the Gold Medal of the T-Square Club, Philadelphia, and the first Travelling Studentship (value \$1,000) of Washington University, St. Louis. He was for several years assistant in the office of Mr. George T. Otis, and afterwards leading designer for the firms of Messrs. Mason & Wood and Messrs. Eames & Young. He practised for a short time in partnership with Mr. J. M. Wood, Detroit, but gave up the connection when the opportunity offered of serving on the Staff of Designers with his old master, Mr. E. L. Masqueray, on his being appointed Chief of Design at the Louisiana Purchase Exhibition. Mr. Swales has travelled extensively on the continent of Europe, and he is the European correspondent for the *American Architect*. He practised for a short time in France, and is responsible for an hotel at Le Touquet and buildings at Boulogne and Paris-Plage. Two years ago he started practice at Bedford Park, Chiswick. His principal work in this country is the Guilford Hotel at Sandwich, and some of the smaller buildings at the Franco-British Exhibition were from his designs.

Flashlight Advertisements.

The Times of the 2nd inst. published the following letter addressed to its Editor from the President of the Institute:—

9 Conduit Street, W., 26th October.

SIR,—The increasing nuisance of flashing electric-light advertisements and signs in London and other of our cities has for some time past been the subject of serious consideration by the Royal Institute of British Architects; and in April last a Resolution was passed by their Council urging the London County Council—which has already done good service to the community by suppressing “sky-signs”—to take measures for the stringent control of all public advertisements.

The Times has consistently supported the attempts which have been made from time to time to check the abuses of advertising, and we beg your permission to again invite public attention to the intolerable and shameful disfigurement of our buildings and cities caused by the absence of proper regulations.

The danger to pedestrians from swift and crowded traffic is greatly increased by flashing signs which suddenly plunge into darkness portions of the roadway which an instant before were brightly lighted. That health, both physical and mental, is adversely affected by the constant irritation to which the senses are subjected seems to be hardly realised outside the medical profession, and the offences to our sight to which we have alluded may well be spared us.

We cannot but think that even the commercial rivals concerned should welcome the enforcement of reasonable limits tending to lessen the strain and cost of their efforts to attract attention.—I am, Sir, yours truly,

ERNEST GEORGE. *President R.I.B.A.*

The Wellington Monument in St. Paul's.

The Times of the 29th ult. published the following letter addressed to its Editor from Mr. John Belcher, A.R.A., *Past President*:—

SIR,—The recent death of Mr. Hugh Stannus, the architect who assisted Alfred Stevens in his work upon the Wellington monument in St. Paul's, reminds us that those who were in touch with our great sculptor are passing away, and it would be well that some effort be made to collect the sketches and studies in their possession, which were furnished by the artist for his work.

The present condition of the monument is a cause of some anxiety to all lovers of the art of Alfred Stevens, and every available source of information should be exhausted before venturing upon any departure from his designs in the proposed completion. When the monument was removed from the chapel to its present position it was found to have been strongly set together with long copper dowels, and these were sawn through to get the stones apart. It is not known whether the work was reconstructed with new dowels, but there has, unfortunately, been a considerable movement of the base and the marble is broken.

It is now proposed to place upon it the group of horse and rider (left incomplete by Alfred Stevens), and proper precautions for the safety of the structure should be taken to avoid further damage.

I learn from Mr. Somers Clarke, F.S.A. (formerly architect to the Cathedral), that the “mass” above the arch is not solid but only a hollow box of thin marble, which, in his opinion, would not carry any weight. Upon the cornice above this box it is said there is to be added a marble surbase of some form which, with the bronze group which is to be placed above it, would weigh some tons. This superimposed mass would, under the circumstances, prove dangerous, for the arch under it may be described as “alive,” and with an increased load would increase in activity. No doubt structural provision can easily be made for the additional weight which is to be placed upon the monument, and it is not to be supposed that the Dean and Chapter are not acquainted with the conditions; but it is the vagueness of the proposals, and the public ignorance of what is intended, which is the cause of some disquietude, and probably the withholding of subscriptions which would otherwise be forthcoming.

It is not stated whether the monument is to be completed like the drawing near it or whether the “group” is to face east or west; whether the arch is to be left bare (this part differs altogether from the model at South Kensington) or is to be completed with bronze festoons and other decorations as shown on some of Stevens's sketches.

Surely, Sir, all matters relating to such an important national memorial should be placed before the public, and the evidence which all the original sketches of Alfred Stevens can supply should be collected in support of any proposal before it is too late.—I am, yours faithfully,

JOHN BELCHER, A.R.A.

International Architectural Competitions.

In the JOURNAL for 29th August was published a translation of the twelve resolutions relating to International Architectural Competitions which were brought forward and approved of generally at the International Congress held at Vienna last May. At a subsequent meeting of the International Permanent Committee the British representatives (Mr. Leonard Stokes and Mr. John W. Simpson) proposed that, in order to render the Resolutions really effective, the various nations adherent to the Congress be afforded an opportunity of considering and confirming them. The proposal commended itself to the Committee, and on the motion of Mr. Simpson a resolution was passed that a copy of the Resolutions be sent to each section of the Permanent Committee with a request (1) to consider them in detail, and return them to the Secretary-General (M. Poupinel, Paris) with any observations thereon; (2) to appoint one member of their section to meet the other delegates at Paris with full powers to discuss the Resolutions and settle a final and definite Report which should be held to express the views of every nation represented on the Permanent Committee. As it was particularly important that the delegate appointed to attend the meeting at Paris should be fully informed as to the views of British architects on the subject, copies of the Resolutions were sent from the Institute to the Competitions Committee

and to the various Allied Societies, with a covering letter inviting suggestions and observations on the Resolutions to be sent to the Secretary of the Institute not later than the 30th September. The replies of the various bodies were duly received and collated by the R.I.B.A. Competitions Committee, who added their own observations and sent the whole in the form of a Report to the British Section of the Permanent Committee. At a recent meeting of this Section the Report was adopted and Mr. John W. Simpson was selected, and has consented, to act as Delegate to represent the views of British architects at the meeting of the International Commission to take place at Paris on the 19th November.

The late Francis Adams Sprules.

By the catastrophic in Cumberland on 13th October last a career full of promise has been unexpectedly cut short, to the regret of all who had known the deceased Associate, Mr. F. A. Sprules. The writer can speak from a daily acquaintance of nearly four years, for Mr. Sprules entered his office as assistant in February 1905, leaving for a week-end holiday on 9th October last, with the intention of returning early the following week. During the time he was in Sheffield he had endeared himself to all by his sterling qualities of Head and Heart. He was a capable draughtsman and endowed with practical knowledge of building and kindred matters in no ordinary degree, and one recalls in his case the force of the saying, "Whom the gods love die young."

CHAS. HADFIELD [F.R.I.B.A.]

The tragic deaths of Mr. Francis Adams Sprules and his brother, Mr. Alfred Meredith Sprules, occurred while climbing the Pillar Rock, Eimdale. News of the pathetic event was finally conveyed to the Institute by their father, Mr. Alfred Sprules, to whom the Institute's deepest sympathy will be extended in his great trial.

Mr. F. Adams Sprules' professional education began at King's College where, after four years in the day and evening classes of the Architectural and Engineering Faculty, he passed the diploma examination. Later he was a student in the Architectural Department at South Kensington. He served his articles with Mr. R. Fabian Russell [F.R.I.B.A.], and remained with him three years. He was afterwards chief assistant to Mr. Frank Peck [F.R.I.B.A.], and subsequently to Mr. Charles Hadfield [F.R.I.B.A.]. He passed the qualifying examination, and was elected Associate of the Institute in 1906.

A new Architectural Weekly.

"DETAILS, a Weekly Journal for all interested in Architecture and the Allied Arts," is the title of a London periodical the first number of which is announced to appear on the 3rd December next. The new venture is to consist entirely of illustra-

tions made from specially taken photographs, reproduced to a large size, and accompanied in every case by measured or scaled drawings, and by such particulars as are necessary or of interest. The prospectus states that the survey of the work illustrated is not to be confined to any one phase or period, nor to purely architectural design, but will embrace all the arts and crafts allied to architecture. Examples of modern work by leading English, French, and American architects will be given, as well as fine examples of old work. Work of an archaeological character will not be admitted. The price of the paper is to be 2s. weekly.

The Northern Architectural Association.

The Council of the Allied Society at Newcastle is arranging to hold an Annual Dinner some time during the Session to celebrate its fiftieth year of foundation. The function will be held at Newcastle, and the President of the Institute, the Presidents of Allied Societies, and others distinguished for their interest in and appreciation of architecture are to be invited as guests. An exhibition of architectural drawings is to be arranged for the occasion illustrating work executed during the last fifty years, with special reference to the district covered by the Association.

COMPETITIONS.

The Blackpool Library Competition.

Members will have seen by the notice advertised in the professional Press and some of the Manchester and Blackpool papers that the conditions issued by the Town Council of Blackpool in the competition for the proposed Public Library at Blackpool have been under consideration at the Institute. The Competitions Committee finding that certain stipulations were not in accordance with the usual practice, the Hon. Secretary of the Committee was instructed to draw the promoters' attention to them with a view to revision. The points to which particular attention was invited were the following:—

Clause 30.—In the event of the work not being carried out, payment should be according to the scale of charges usually recognised for work abandoned by the employer, viz. 1½ per cent. on the estimated cost.

Clause 32.—If the design selected was not approved by Mr. Carnegie, the author should be allowed to amend it to meet any suggestions or requirements made by him.

Clauses 33 and 34.—The payment of 5 per cent. should be exclusive of travelling expenses, which should be allowed in addition.

Clause 35.—The architect could not be held responsible for the work of the quantity surveyor. It was

impossible for him to ascertain whether the quantities were accurate or not, and the bills of quantities were entirely the quantity surveyor's work.

Clause 36. A great deal more work was asked for under this clause than should be reasonably included in the charge of 5 per cent.

Clause 37. The margin allowed should be 10 per cent.; and it was manifestly unjust that the plans, &c., should remain the property of the Council without any payment whatever.

Clause 13. The heights specified appeared excessive and inconsistent with the proposed expenditure.

It was also noted that many unimportant points (such as positions of pipes, stop-taps, &c.) which could not affect the plans were entered into, while really essential information (such as whether the Library was to be worked on the "open access" or "indicator" system) was withheld.

It was finally pointed out that unless the conditions were revised architects of repute would refrain from taking part in the competition.

In a letter received from the Town Clerk of Blackpool in reply, it was stated that the matters drawn attention to by the Competitions Committee would be probably dealt with in the replies to competitors' questions then under consideration by the Town Council.

A copy of these answers to competitors' questions was afterwards sent to the Institute and considered by the Committee. It was found, however, that no really vital point had been conceded, and that the conditions remained as unsatisfactory as before. As regards Clauses 33 and 34 the reply in one case was "No," and in another that "it would be the subject of an agreement with the successful competitor." As regards Clause 35 the answer did not absolve the architect from signing the quantities as approved by him. The Council feel that the architect should not be in any way responsible for the quantities, particularly as the quantity surveyor is in the first place to be appointed by the Blackpool Council.

No satisfactory answer being returned as to Clauses 30, 32, 36, and 37, which in the Council's opinion are distinctly unfair, the Council considered that in the interests of the profession they had no alternative but to request members not to take part in the competition, and they are expecting the loyal co-operation of members of the Institute to this end.

BYZANTINE RESEARCH.

A COMMITTEE for the furtherance of this object, with Dr. Edwin Freshfield as its President, was formed in the spring of this year. In order, however, to extend its sphere of action, Early Christian and Frankish remains were added so that the field of work might include the systematic investigation of the remains in the countries and islands of the Eastern Mediterranean from the introduction of Christianity to the fall of the Eastern Roman Empire in A.D. 1453.

The object of the Committee was twofold.

First, to survey the remains of churches and other buildings, and to produce measured drawings of the same, and if necessary to carry out excavations to determine the ground plans and other features of ruined buildings, to be supplemented by drawings and photographs of the mosaics, frescoes, or sculptures which they contain; and secondly, to publish the materials thus collected and prepared. With reference to the second object it might be pointed out that already in 1891, under the auspices of the British School at Athens, a valuable volume on the Church of St. Luke in Stiris, by Messrs. Schultz and Barnsby, was published, which might have been followed by other publications of the same nature had there been any fund to provide for them. The same authors, in 1889, collected a vast amount of material, chiefly of Byzantine architecture, with a complete series of photographs of important churches in Salonica. Since then Mr. W. S. George, the Soane Medallist and Travelling Student of the R.I.B.A. in 1906, has continued the work, and this year Mr. W. Harvey, the Gold Medallist and Travelling Student of the Royal Academy, has undertaken the investigation and record of Byzantine churches in Cyprus and the delineation and photographing of the mosaics in these churches. An immense amount of material therefore already exists which could be published at once if a fund could be started for that purpose. In order to raise the same it is proposed in the first instance that subscriptions be guaranteed for three years, so as to enable the publication of at least one volume of material already collected, and to make further investigations of monuments, the destruction of which is always proceeding, and of late years has been largely extended. The Byzantine Research and Publication Fund is being worked in association with the British School at Athens, to which school the student who extends his travels eastward now generally goes, and where he obtains the privileges of the school, which includes a library, drawing office, and in certain cases residence. That, however, which is of still greater importance to the student of the British School at Athens is to have the advice and assistance of the Director of the school and to make the acquaintance of other students, many of whom are scholars from Oxford or Cambridge.

To the prospectus issued by the Fund an appendix has been added giving a list of the subjects which have been recorded, but not yet published, and a second appendix of others which require investigation the publication of which might possibly suggest an itinerary to some of the Institute students who desire to extend their researches beyond Italy.

LIST OF SOME OF THE BUILDINGS TO WHICH THE ATTENTION OF THE TRAVELLING STUDENTS IS SPECIALLY DRAWN.

The Church of St. Mary, Bethlehem.
The Monasteries of Mount Athos.
The early Churches in Cyprus, not recorded in Enlart's work, which was confined to those of the French occupation of the island.
The Monastery of St. John at Patmos.
The Coptic Churches in Egypt.
The Byzantine Churches in North Africa.
The Churches on the islands of Chios, near Smyrna, and of Paros.
The Medieval work in Rhodes.
The work at Nicæa, Trebizond, and other Byzantine centres in Asia Minor.
The Byzantine Churches in Crete.
And numerous examples on the Mainland of Greece.

Many of these churches still retain their mosaics and fresco paintings.

R. PHENÉ SPIERS [F].

The Governing Body of the Byzantine Research and Publication Fund is constituted as follows:—

President: Mr. Edwin Fischel, LL.D., F.S.A.
Committee: MM. Thomas Ashby, M.A., Litt.D., F.S.A., Director of the British School at Rome; Sidney H. Barnsley, Architect; H. A. A. Cruso, B.A. (Honorary Treasurer); O. M. Dalton, M.A., F.S.A., Department of Medieval Antiquities, British Museum (Honorary Secretary); R. M. Dawkins, M.A., Director of the British School at Athens; Professor W. R. Lethaby, F.S.A., Architect; D. Randall-MacIver, M.A., D.Sc., University Museum, Philadelphia, U.S.A.; William Miller, F.S.A., Rome; Professor J. L. Myers, M.A., F.S.A., University of Liverpool (Chairman); C. H. Read, Esq., LL.D., F.S.A., Keeper of Medieval Antiquities, British Museum; R. Weir Schultz, Architect (Honorary Secretary); Cecil H. Smith, LL.D., Keeper of Greek and Roman Antiquities, British Museum, formerly Director of the British School at Athens; A. Hamilton Smith, F.S.A., Assistant Keeper of Greek and Roman Antiquities, British Museum; R. Phéné Spiers, F.S.A.
Joint Sub-Committee of the British School at Athens and the Byzantine Research Fund: Professor Ernest Gardner; MM. George A. Macmillan, D.Litt., O. M. Dalton; R. Weir Schultz.

The Committee, in appealing for funds to enable them to carry on their work, point out that the limited number of persons interested in such studies renders it the more incumbent upon those who appreciate their importance to forward such a project by all the means at their command. Subscriptions, which may be either donations or annual subscriptions for a period to be specified by the subscriber, should be forwarded to the Hon. Secretary, Mr. R. Weir Schultz, 14 Gray's Inn Square, W.C., and cheques made payable to the Byzantine Research Fund, and crossed London and Westminster Bank, High Holborn, W.C.

MR. FRANK LISHMAN'S WATER-COLOUR DRAWINGS.

AT the Rydal Gallery, Albemarle Street, there are now on view some sixty water-colour drawings: of these some are landscape sketches, some street views, and some purely architectural. Common to all of them is the merit of a free and firm execution in pure, transparent water-colour. To the many who know Mr. Lishman as an active Associate his fine draughtsmanship of architecture will be no surprise; his coloured drawings in this branch of art have a freshness and a crispness of execution that are delightful, and several exhibit a fine sense of what is pictorial in selection of subject—of such is No. 13, the south aisle of the Duomo, Pisa; and No. 47, another interior of the same cathedral, is excellent in its clear tone and the judgment with which colour is used in the figures. No. 17, the North Transept and Lady Chapel of Canterbury, is a very fine bit of expressive drawing, executed with remarkable precision of touch and clearness of detail. A small drawing of Giotto's Campanile, No. 9, is a good example of careful and accurate work in which Mr. Lishman has nowhere lost his clear manner while treating minute detail. There are some excellent street views in which the necessarily abrupt perspective is well managed. In some of these there is perhaps a little want of modulation in the tinting of plain surfaces, the result being occasionally rather hard; and more than one, notably Nos. 1 and 43, suffer from the use of a gamboge-toned yellow on the directly lit walls which disturbs the rest of the colouring.

The landscapes show a good appreciation of nature in various moods. Two of Bamburgh, Nos. 59 and 60, in a broad, clear manner, are very fresh and pleasant, as is also No. 2, Castello di Nozzano in the springtime. There are also several small subjects of the Galloway country in which the colouring and character of the scenery are well rendered; and a little view of Chartres after sunset (No. 31) and one of Harrow-on-the-Hill (No. 57), though very simple, have distinct charm. A large proportion of the drawings exhibited were, I believe, executed in the intervals of professional work, or during tours of architectural study—are in fact the outcome of that longing to go outside the study of the "artificial," with its defined forms, to the larger nature which lies beyond and is their setting. It is the natural craving of every man with the artistic temperament; and Mr. Lishman shows that he can make this departure with capability and facility as well as with appreciation. It is, I think, fair to say that the latter study benefits the other, and Mr. Lishman can draw architecture so well that his appreciation of natural scenery can only add to his resources in representing the art of which he is so good an exponent.

J. D. CRACE.

REVIEWS.

ARCHITECTURAL EDUCATION.

Architectural Education: A history of the past and some criticism of the present system . . . with particular reference to the position of the Universities. By WILFRID I. TRAVERS [A.]. Price 4s. [Harrison Johnson & Co.]

It is pleasant to find one of the first eight students, with whom the Architectural Association Day School started its career, contributing this bulky Blue Book "as another item to the mass of written material on the subject."

The author's apology on this head seems needless, as the collection of material he has got together may be of considerable service to any speaker or writer on architectural education. We must leave to others to examine the accuracy of the data given and confine ourselves to a brief comment on the apparent intention of the author.

Although the account is impersonal there is an idea conveyed that the author's own experiences are behind the advice given. Unfortunately Mr. Travers was only one year in the Architectural Association Day School, not having joined the second-year course when it was started, and it is not unnatural, therefore, that in his references to schools under "Municipal and purely professional control" as being likely to impede the possibility of general University control he should seem to be writing under a very insufficient appreciation of the benefits of the education of architects by architects. To the onlooker it may well appear that there is a very considerable danger to architectural education from a facile copyism of legal and medical methods. False analogies are the most dangerous of all forms of reasoning, and it by no means follows that the methods of those two professions can be safely imitated in architecture. The author writes evidently under this influence, and we have here the essence of his matter, because he produces no valid arguments in favour of University control apart from the natural desire, shared by every one, that architects should be as highly and as widely educated as possible. In this there is unfortunately a further fallacy to be guarded against, for curricula are easily set out, and all manner of interesting and useful items can be logically included; but a little practical experience will enable anyone to take these things at their true valuation. Next to Vitruvius, probably the most extensive ideal was that drawn up by Sir Charles Barry for the Royal Academy, and that is a long while ago. The London Primary Schools have as complete a range as the greatest faddist in education can desire, but talk to the responsible teachers and you will soon find that they are rendered desperate by the complexity of the time-table, and by the obvious uselessness of foisting shreds and patches of so many subjects on to the overdriven children. Everyone knows what this type of education has produced. Precisely the same thing occurs in the

Universities. How many M.A.'s when called upon to support themselves have had to lament that they have had "the education of a schoolmaster." The writer well remembers hearing from Professor Aitchison some wise remarks on this head to the effect that when he proposed to himself to pass the R.I.B.A. Examination he jettisoned about half the subjects in order to concentrate upon those which he felt he could assimilate.

Surely it is with knowledge as with food—only that which is digested is of any real service and is devoid of harm, and likewise the relation of value of the curriculum to the educator is merely that of the menu to the cook. This commonsense view was bestowed on a keen teacher by an ancient of the Architectural Association when as head of a struggling venture he lamented the absence of teaching plant, since acquired, and was gravely informed that enthusiasm in the teacher outweighed apparatus.

Mr. Travers is oppressed by the influence of the particulars he has diligently amassed, and gives altogether insufficient weight to the scope and success of Architectural Association methods, laying far too much stress on the mechanical data of mere curricula. As for the Ecole system, of which he gives an abstract, it will be time enough to consider that when the Government has agreed to play the patron and to secure the future of the winners.

The best students of course have it in them and will survive any educational system; but, apart from that, the method which turns out good hard-working pupils, able to catch on to the routine of an office, will give the best training for a profession in which it is none too easy to make a living, and of which the essence is a gift impossible to define, and very hard, even for the most acute and sympathetic, to detect in the early stages of its development.

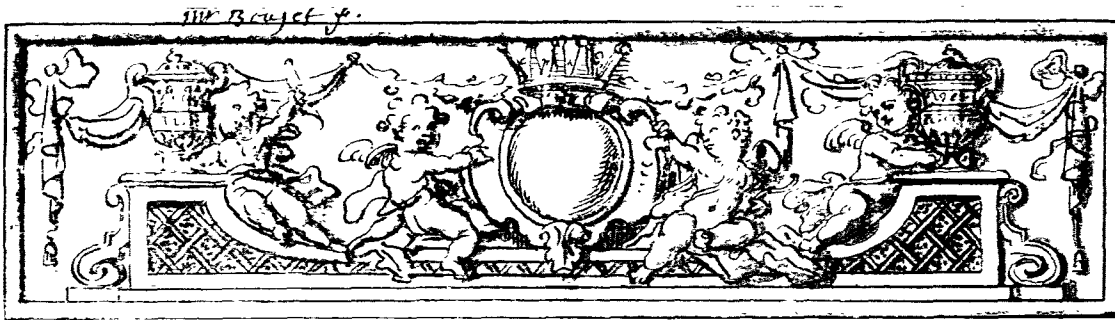
ARTHUR T. BOLTON [A.].

PUBLIC ABATTOIRS.

Public Abattoirs: their Planning, Design, and Equipment. By R. STEPHEN AYLING [F.], Royal Academy Medallist. Godwin Bros. 40. Lond. 1908. Price 8s. 6d. [E. & F. N. Spon, Limited, 57 Haymarket.]

In the preface to this book the author states that the object he had in view was to advocate a general "abattoir system," and "demonstrate that public abattoirs are an absolute necessity rather than a luxury." Mr. Ayling—who has made the subject of abattoirs a special study for many years past—writes with authority, and may certainly claim to have attained his object.

Broadly speaking, the demand for public abattoirs is made on two grounds—the humanitarian and the hygienic. As regards the former there is, one may hope, no need to insist on its importance, and the mere mention of it should be sufficient to recommend its observance. The hygienic aspect of the question is one which can hardly be too widely discussed, since it involves momentous issues to the public health. The hole-and-corner method of slaughtering and the unsystematic in-



Panel from the Smithson Drawings (No. 114) entitled "Mr. Bonet's."

THE DEVELOPMENT OF HOUSE DESIGN IN THE REIGNS OF ELIZABETH AND JAMES, AS ILLUSTRATED BY CONTEMPORARY ARCHITECTURAL DRAWINGS.

By J. ALFRED GOTCH, F.S.A. (Kettering).

Read before the Royal Institute of British Architects, Monday, 16th November 1908.

MR. PEGGE, an antiquary who lived at the close of the eighteenth century, remarks in a footnote in his *History of Bolsover Castle* that Huntingdon Smithson, living at Bolsover in 1601, was the architect of that building, and that a ground plan by him of the grand building different from that which was afterwards executed, another plan of the offices, and a third of the little house (meaning the castellated portion) were in the hands of the Rev. D'Ewes Coke, of Broke-hill, purchased by him at Lord Byron's sale in 1778 or 1779. This architect, he says, died in 1648, and was buried in the chancel of Bolsover Church.

The drawings among which these were included, were lost to sight, so far as I know, until they were exhibited at our President's "At Home" in the spring of last year. A notice of them by Mr. Maurice B. Adams appeared in the *JOURNAL* shortly afterwards,* and subsequently I was asked to write this Paper in order to describe them more fully and to compare them with the better-known drawings of John Thorpe. So congenial a task I undertook willingly, and Colonel Coke, of Brookhill Hall, most kindly lent the drawings for the purpose.

Beyond these and Thorpe's drawings there are few, if any, extant which were made at that time of such a nature as to throw much light on the development of house design; but the two collections are sufficient for the purpose. Before applying them to this end, however, it will be advisable to say a few general words about them.

The first thing that occurs on examining the Smithson drawings is a doubt as to whether they are the work of Huntingdon Smithson. There is no doubt that they are mostly the work of a Smithson, inasmuch as a number of them are so described in a hand rather later in date than the drawings themselves. But it is an unfortunate fact that the Christian name of Smithson is never given. The explanatory writing on the drawings themselves—that is, the names of the rooms, the titles when such are given, the dimensions, and so forth—is nearly all in one hand. In the same hand is written against one of them: "The platte of the Seelinge† of the Greate Chamber at Thyballes taken the 8th of November, 1618, by Jo. S." We may fairly consider S. to stand for Smithson, and Jo. can only stand for John. So we are confronted with a new problem; Robert Smithson we know: he died in 1614 and lies buried at Wollaton; and Huntingdon we know; he died in 1648, and lies buried at Bolsover. But who is John?

* *JOURNAL*, 23rd Feb. 1907.

† "Seelinge" means panelling.

To this question we have as yet no answer. But it is almost certain that he is of the same family as the others. Wollaton, where Robert lies, is close to Nottingham; Bolsover is not many miles distant—perhaps twenty. Among these Smithson drawings are some of Bolsover; some of Welbeck and of Worksop, in the same district; some of Clifton, close to Nottingham; two of Wollaton; some of other houses in Nottinghamshire; and there is a plan of Nottingham Castle. It would seem, therefore, that the author of them did a considerable amount of work in that neighbourhood.

The drawings themselves are of varying degrees of excellence. Some are carefully executed, as though for publication; others are roughly done, as though for practical use. They com-

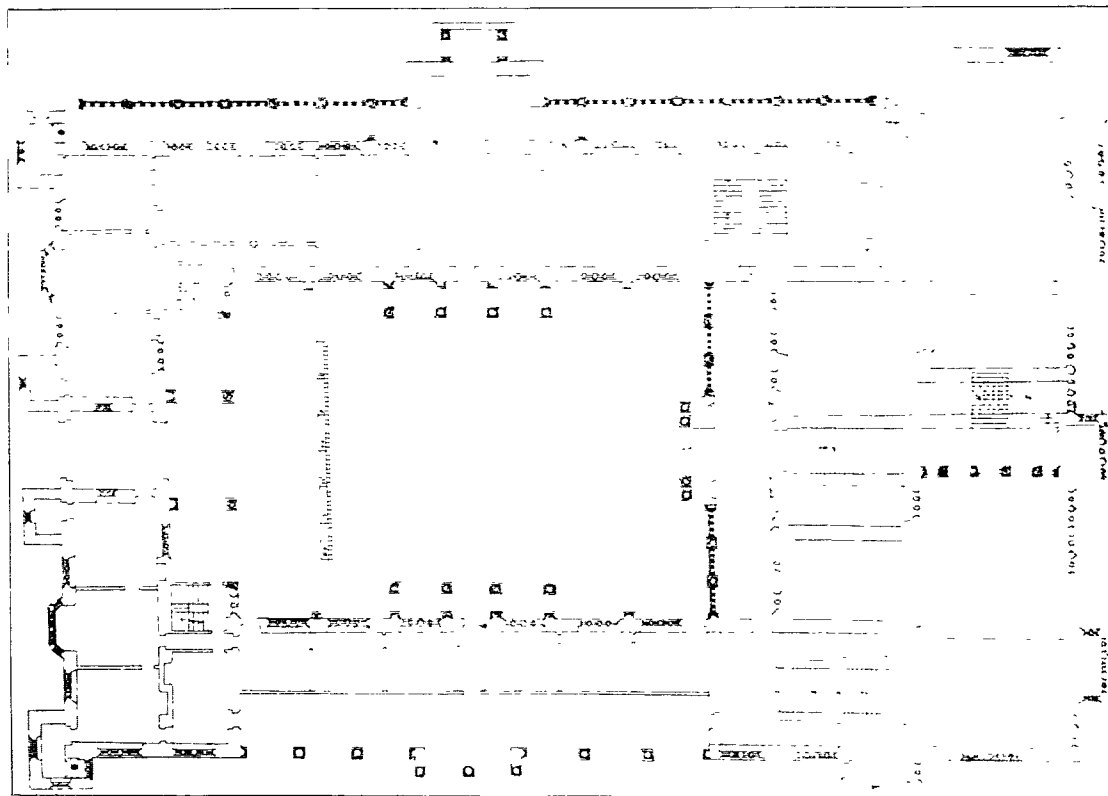


FIG. 1.—GROUND PLAN OF PUGHLY HOUSE (CHROPE COLLECTION).

prise plans of houses and a few elevations; plans and elevations of stables; surveys of houses and of gardens; details of doorways, windows, screens, chimney-pieces, and monuments, as well as drawings of panelling, of fittings, and of a few implements. It is clear that they were valued by some successor of Smithson, who must have collected and preserved them; to some of them he wrote titles, such as "A Screen at Worsop Mannor by Smithson," "A Screen by Smithson," "A Plan of Nottingham Castle taken by Mr. Smithson in 1617"; and it is curious to find that the explanatory writing on some of the drawings is in the same writing as these titles—almost as though an assistant, after Smithson's death, had collected the drawings of his eminent master with a view perhaps to publication, certainly to preservation."

¹ See, however, the note on "The Watermarks," at the end of this paper.

They have many of them been mounted ; some if not all by the original collector, inasmuch as he has occasionally written his titles on the mounts. They have also been numbered on the back, probably by the Rev. D'Ewes Coke. But the person who mounted them did not place them in any consecutive order. There are often several on one mount, and fellow drawings are to be found on different mounts. The person who numbered them did his work in even more haphazard fashion. He has, however, enabled a reference of a sort to be made, and it is clear, from there being gaps in the numbers, that some of the drawings are missing, among those lost being all the plans of Bolsover referred to by Mr. Pegge, with the exception of the plan of the offices, which still remains, and which serves to identify this collection with that which he mentions.

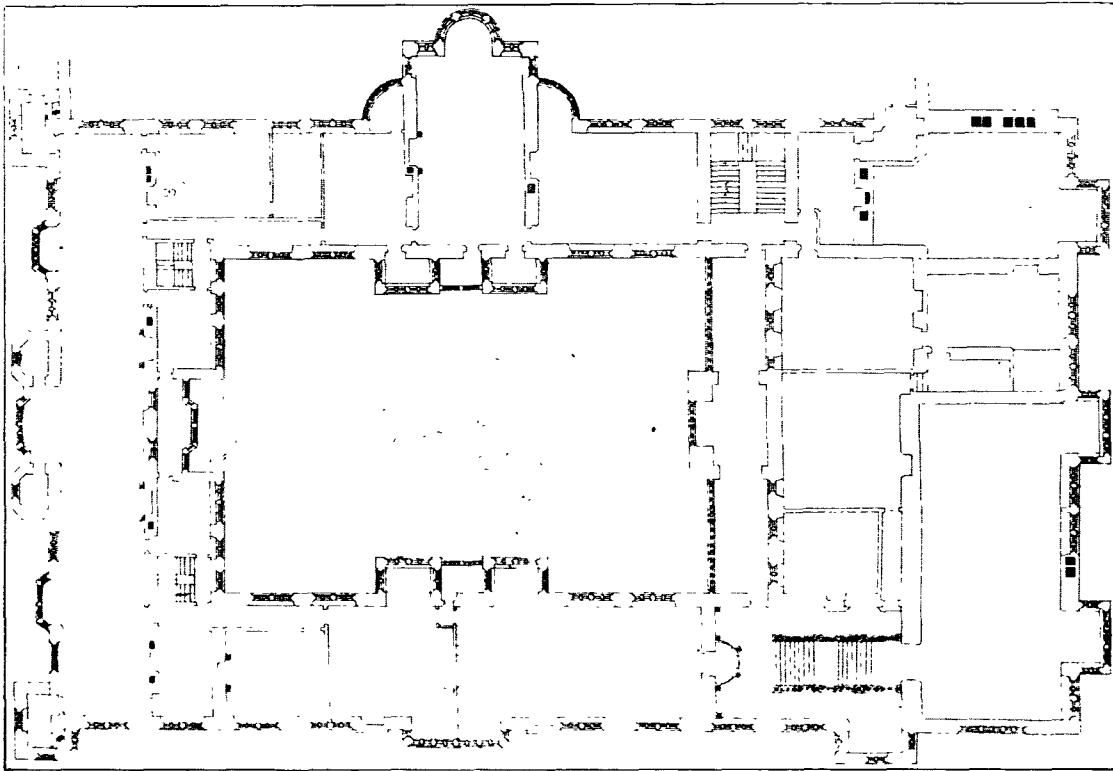


FIG. 2.—UPPER PLAN OF BURGHLEY HOUSE (FROST COLLECTION).
(Writing on the Courtyard, in pencil, "Burghley juxta Stamford.")

There are ninety-nine sheets in all, and probably more than twice that number of drawings, since many of the mounts contain two or more. Of the ninety-nine sheets there are some seventeen or eighteen which cannot be attributed to Smithson, leaving about eighty which may fairly be credited to him. The numbers run consecutively up to eighty-nine. After that there are gaps, showing that some drawings are missing. Colonel Coke tells me that a number were lent years ago to Mrs. Chaworth Musters, of Colwick, near Nottingham, and unfortunately perished in the fire which destroyed that house. But as those which bear numerals above eighty-nine are mostly by other hands, it is possible that the drawings which are lost were not all by Smithson. In any case there is a very fine collection still left.

These drawings have lain in obscurity for so long that they are practically unknown to the world interested in such matters. It is otherwise with the collection known as John

Thorpe's, which are preserved at the Soane Museum. Many of these have been published, and numerous references have been made to them by writers on the domestic architecture of that period.

The two collections differ as to the mode in which they have been preserved. Smithson's drawings, as already observed, appear to have been collected by a successor. Thorpe's, on the other hand, were undoubtedly arranged by himself in a bound book. Smithson's are nearly all finished drawings, many of them being executed with great care. Thorpe's are of all sorts: a few are highly finished; the remainder are in all stages of development down to

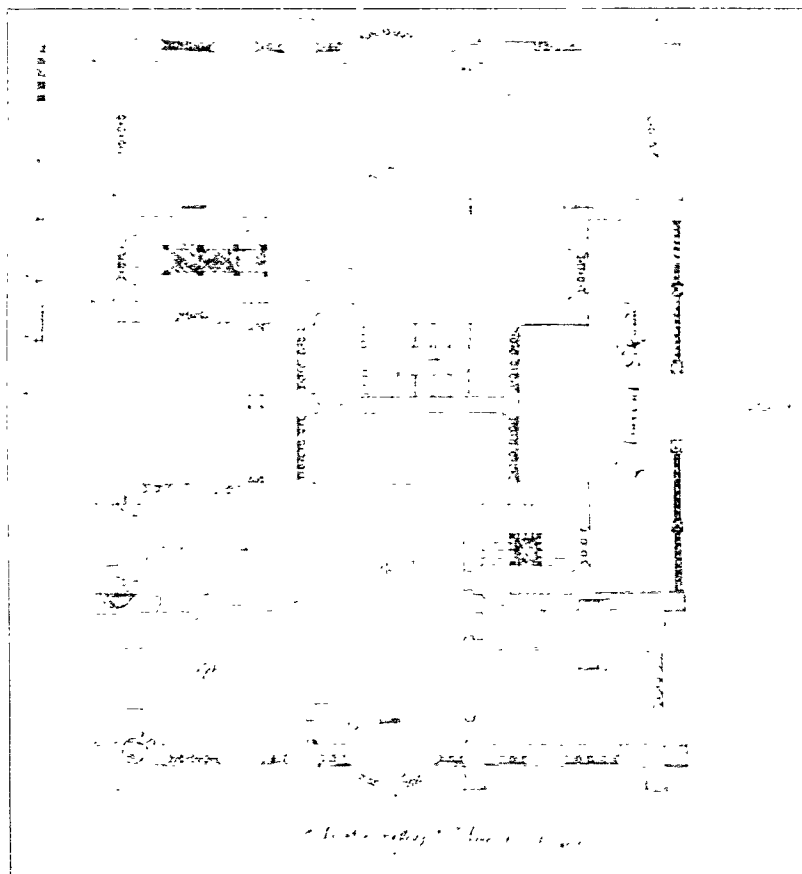


FIG. 3.—GROUND PLAN OF SIR VINCENT SKINNER'S HOUSE (THORPE COLLECTION).
(Title, "Thornton College & Vincent Skinner's")

the merest outlines of a plan or elevation. They are nearly all plans and elevations of houses; there are a few full-size details of stonework, and some strapwork gables and other details of like nature; but there are no chimney-pieces, windows, screens, or similar features. There are many rough sketches jotted down at the side of the larger ones, alternative treatments of the same subject: and the whole series affords a vivid insight into the working of the designer's mind. A very remarkable and clever designer he was—unsurpassed, I venture to say, as a planner of houses. Every fresh examination of his drawings increases one's admiration of his ingenuity, and almost every one of his plans has a touch of the grand manner about it.

A few of Smithson's drawings (seventeen to be precise) bear dates, which of course is a very valuable fact. They range from 1599 to 1632. Nine out of the seventeen are dated 1617, 1618, or 1619, and from this we may fairly draw the deduction that this Smithson was in his full career at that time—a time when John Thorpe must have been approaching the close of his long and busy life. A few of Thorpe's drawings are dated, but not many. The earliest is 1570 and the latest is 1621. As Thorpe tells us that he laid the first stone of Kirby in the year 1570, the two sets of drawings—his and Smithson's—cover practically the whole of the reigns of Elizabeth and James, and furnish an invaluable series of examples showing the development of domestic architecture during that interesting period.

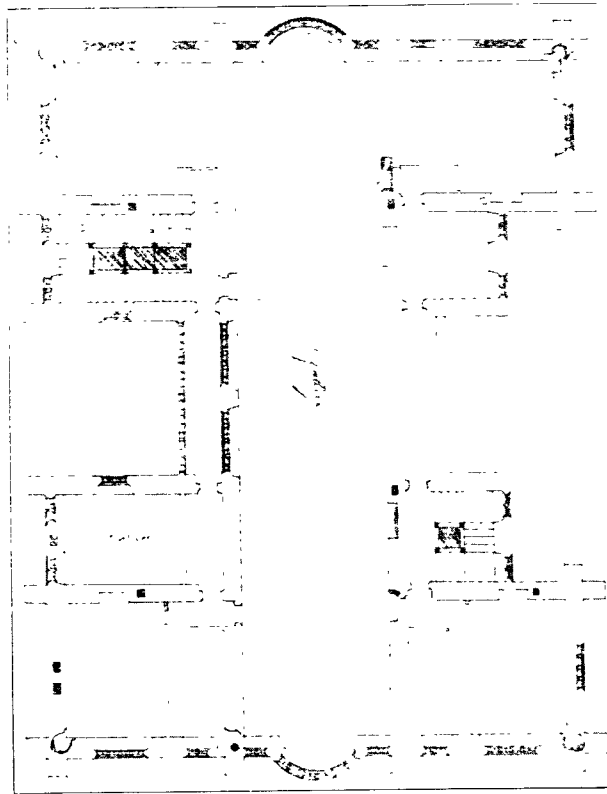


FIG. 1.—UPPER PLAN OF SIR VINCENT SKYNNER'S HOUSE (THORPE COLLECTION)

As it is this development which is the subject of the Paper, the illustrations will be chiefly taken from the plans and elevations in both collections. Those from Thorpe's book are from careful tracings: those from the Smithson collection (which are all on loose sheets) are from photographs. But it must not be supposed that this selection exhausts the interest of either collection.

The planning of houses built before the middle of the sixteenth century was, as a rule, somewhat haphazard, subject always to the old-established arrangement which made the hall the chief apartment, and placed it between the family rooms at one end and the servants' quarters at the other. This, of course, was the root-idea which had dominated every plan large or small. But in large houses and in houses which had been extended, the additional accommodation had been provided in the manner which seemed at the moment the most

convenient, without much thought of what the general effect would be in regard to appearance. There was but little endeavour to arrange the various rooms systematically, far less was there any real attempt at symmetry. It is true that in one or two instances, towards the close of the fifteenth century, a manifest striving after symmetrical arrangement is apparent at Kirby Muxloe, for example, and at Hurstmonceaux. But none of the great houses of Henry VIII.'s time, even, were anything more than approximately symmetrical. As the influence of Italian design grew stronger, however, symmetry became more highly prized: and by the end of the third quarter of the sixteenth century it had obtained a complete hold of English designers, and dominated their plans in the most obvious and sometimes curious way.

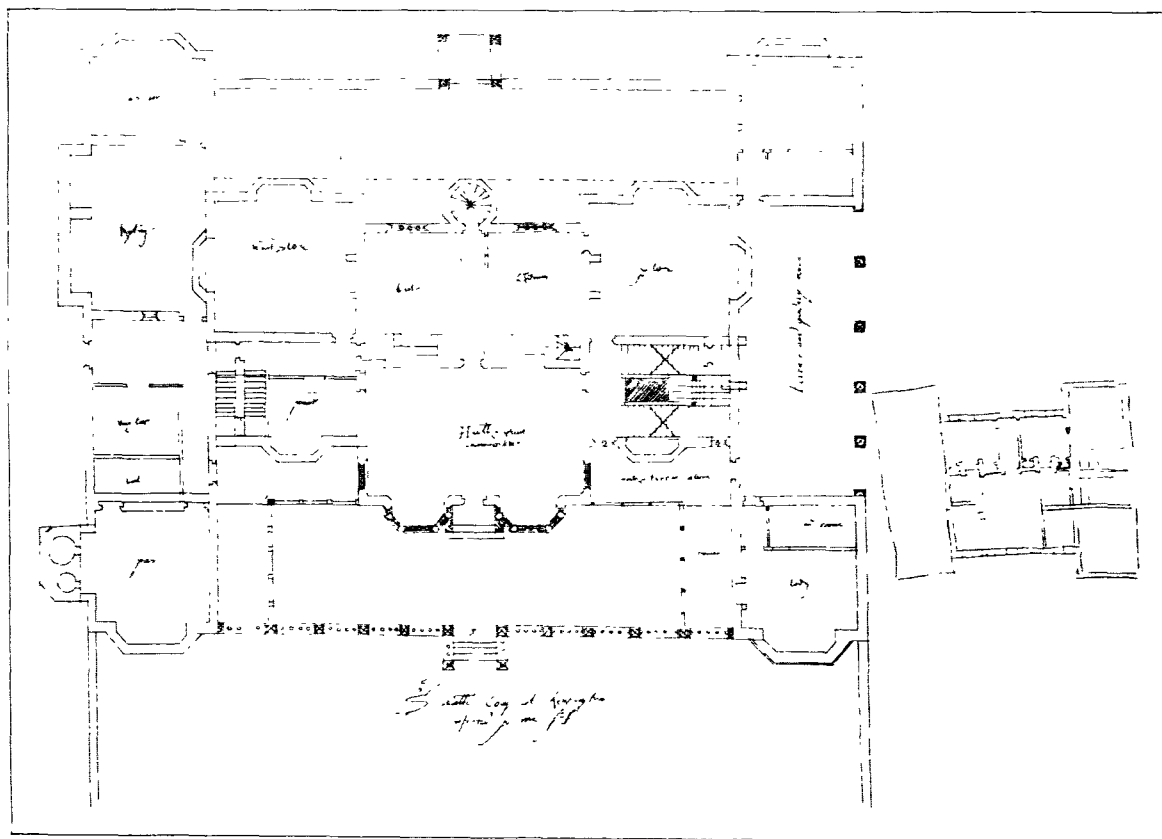


FIG. 5.—GROUND PLAN OF SIR WALTER COKE'S HOUSE, NOW HOLLAND HOUSE (THORPE COLLECTION)

(Title: "Sir Walter Coke at Kensington, p. 100, m. J.T.")

The old jealousy of free approach still lingered on in many cases: courtyards were still retained, formed either in the building itself or by a high surrounding wall: windows were carefully protected by iron bars. It is difficult to determine how far these arrangements were considered really essential, how far they were mere survivals of ancient ways, and how far they were retained for the sake of architectural effect; for contemporary with the courtyard plan was the isolated block, practically free from defensive outposts, and almost as approachable as a modern villa standing in its own grounds. There is no definite point at which the courtyard type was superseded, as being no longer necessary, by one less inclosed and more open to the world. The type to be adopted became a matter of choice according to individual taste or architectural necessity.

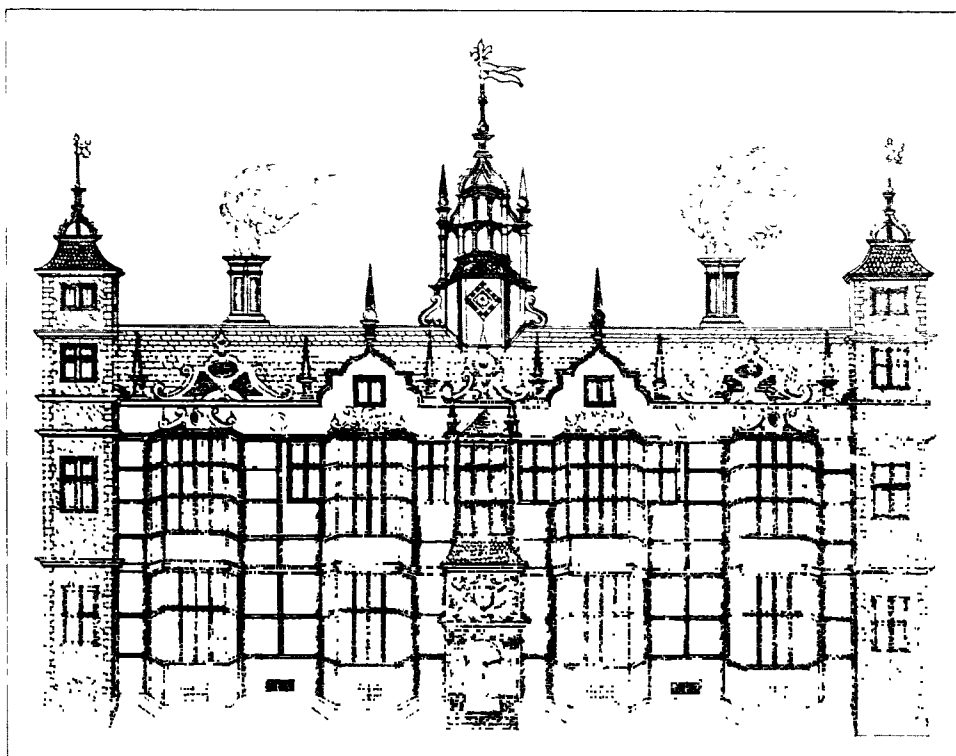


FIG. 6.—ELEVATION OF AN UNNAMED HOUSE (THORPE COLLECTION).

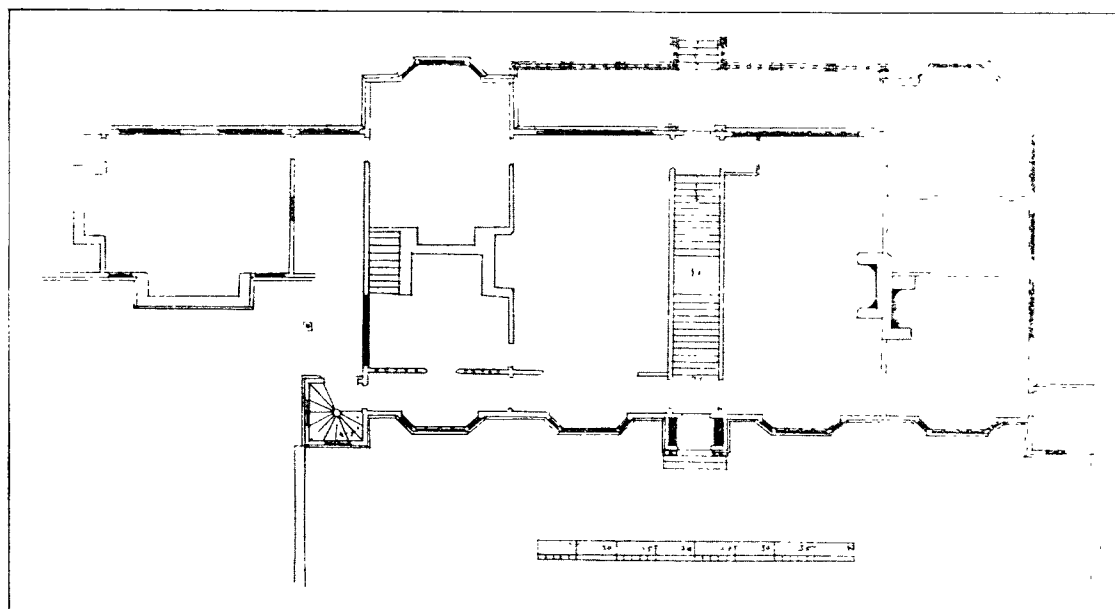


FIG. 7.—GROUND PLAN OF UNNAMED HOUSE (THORPE COLLECTION).

For Elevation see fig. 6.

By the time that Thorpe began to design, this change in ideas was virtually established, and accordingly we find that he made use of various types. The courtyard at Kirby in 1570; the open-access type at Wollaton in 1580, where there is no court either within or without the house; the H type in other instances. It is interesting, however, to find among Smithson's drawings a plan of Wollaton with a court in front of each face of the house. It is not at all unlikely that Robert Smithson, who is described on his tomb as "architector & survayor" to that house, may have added these courts.

But whatever type Thorpe adopted he always treated it symmetrically. If the symmetry did not affect the whole design it affected its component parts, such as the various facades and the courtyard; and we shall find that as the years advanced the symmetry hardened, as it were; so that the later examples are more rigidly dealt with than the earlier.

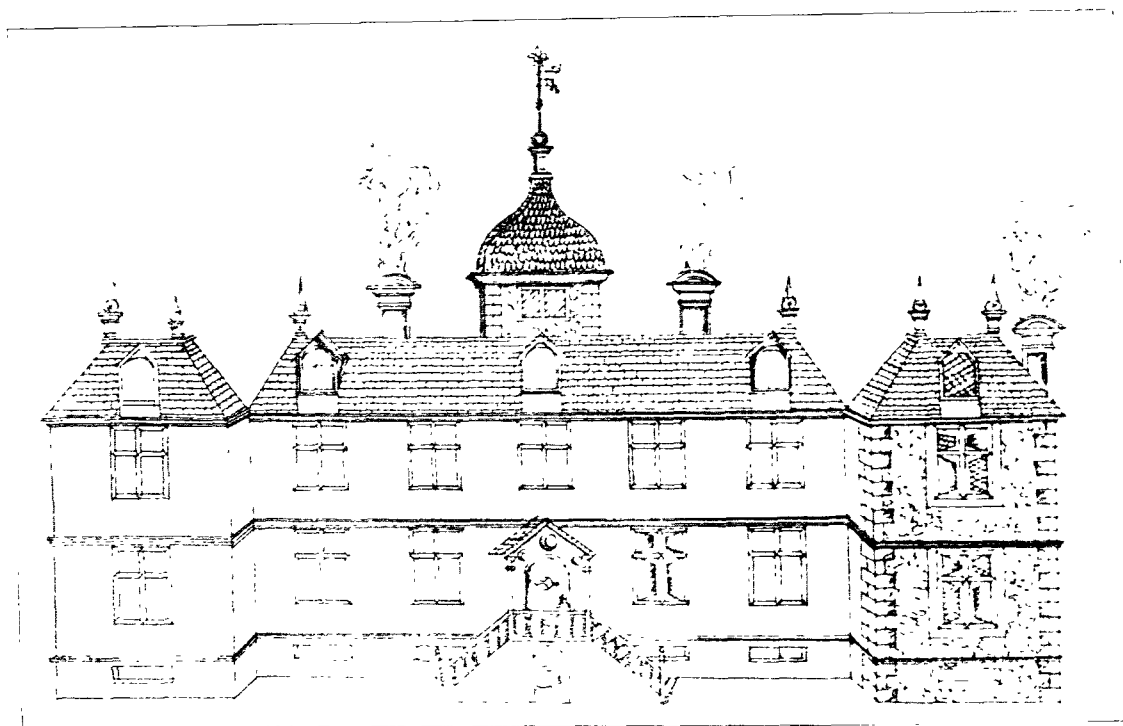


FIG. 2.—ELEVATION OF AN UNKNOWN HOUSE, 1580 (COLL. CLON)

This hardening is apparent not only in the plans but in the elevations. The fanciful touches which gave so much charm to the earlier buildings were gradually withheld; the treatment became more staid, the detail more ponderous. The change is noticeable in Thorpe's own drawings, and is quite apparent in comparing his with Smithson's.

Another interesting and very significant change which these drawings illustrate is in the disposition of the hall. Hitherto it had always been the centre or heart of the house. The chief entrance had always led direct into the screens or passage cut off from the lower end of the hall. This passage gave access on one side to the buttery, pantry, and kitchens; on the other to the hall itself, from the upper end of which the family rooms and the grand staircase were approached. But during the closing years of the sixteenth century and the opening years of the seventeenth this disposition began to be modified. The hall began to be regarded sometimes as a separate apartment, not necessarily the centre of the house, some-

times as a vestibule leading to the living-rooms, and not as itself the chief living-room. The deposition of the hall from its historic pre-eminence as the principal apartment and the converting of it into a fine vestibule mark the final severance of the new from the old. With this change mediævalism practically lost its last hold on the English house; henceforward house planning was to be carried out on new lines. Thorpe and Smithson are the last exponents of the old tradition; the change which their later designs foreshadow was consummated by Inigo Jones and his followers.

The examples selected from Thorpe's drawings have been chosen in order to illustrate the main types of plan which he adopted, the general accommodation which an Elizabethan house

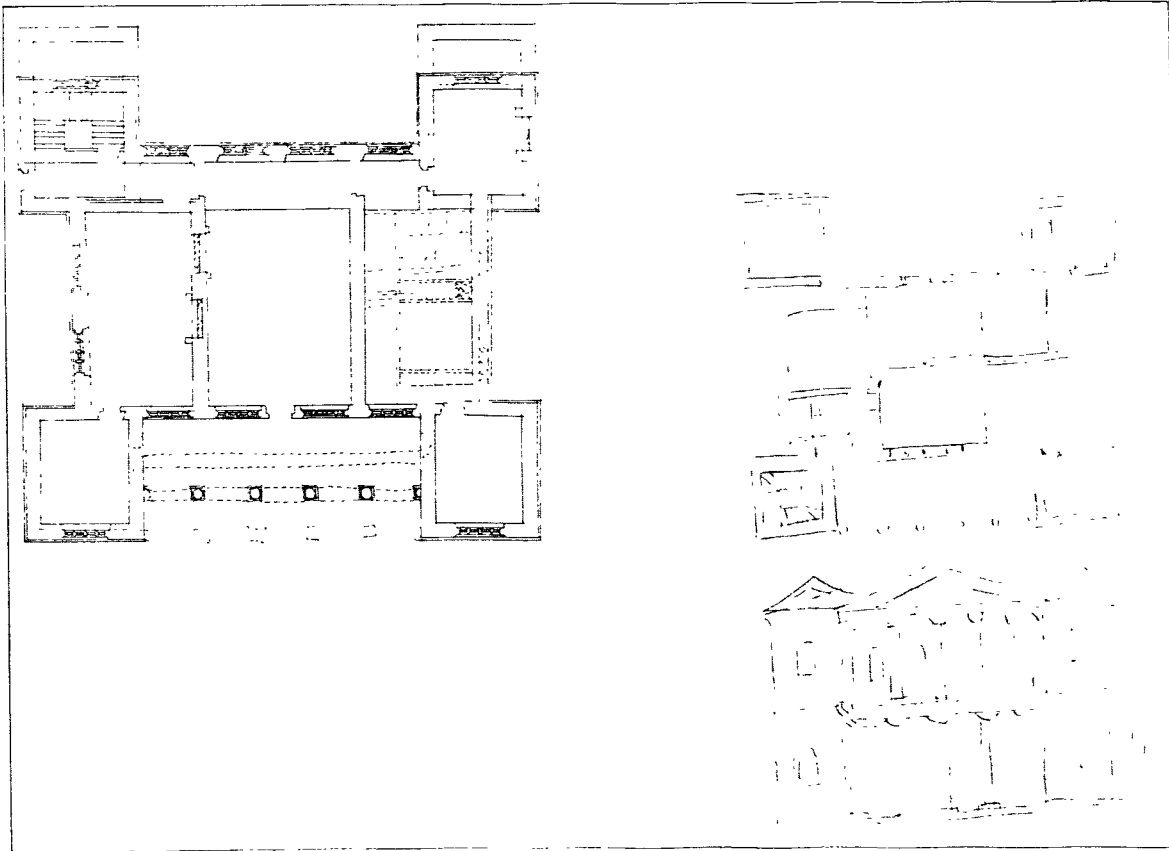


FIG. 9.—PLAN AND ELEVATION OF AN UNNAMED HOUSE (THORPE COLLECTION).

afforded, and the change in the disposition of the hall. So few of them are either dated themselves or can be dated from other sources that it is impossible to answer for the chronology of the series. Some few, however, can be dated, and these confirm what has already been said as to the change. The remainder serve to give a good idea of the transformation, although not necessarily in its chronological sequence.

The elevations give an excellent conception of the style of the period, and tend to show how house design gradually lost its early freshness and freedom and set its face towards those paths of correctness and severity into which Inigo Jones and his successors finally led it.

Of the illustrations herewith given* the earliest in date are the plans of Burghley House,

* The drawings here reproduced are a small selection from those shown on the screen.

built between 1577 and 1587 [figs. 1 and 2]. The right-hand block, as far as the courtyard, is of somewhat earlier date. It is the courtyard for which the Elizabethan designer (presumably Thorpe) is responsible. The symmetry of each facade, and of the court, is obvious. In the upper side (which faces north) is the entrance. There was here an outer court formed of



FIG. 2. FLOOR PLAN OF BURGHLEY HOUSE. (SMITHSON COLLECTION, NATIONAL ARCHIVES)

narrow buildings of which the start is indicated on the plans; but the west side of this court has long been pulled down, thus depriving the remaining side of its meaning. Burghley was a large and important house, and was accordingly treated in a grand way. The entrance porch was approached across the outer court, which was imposing enough, although surrounded by

inferior rooms. The inner court was arranged on two axial lines at right angles to each other. One passed through the porch already mentioned, crossed the courtyard, and out through the middle of an open loggia on the south. The other passed through the screens of the great hall, crossed the court, and so out through another fine vaulted entrance in the west wing. In front

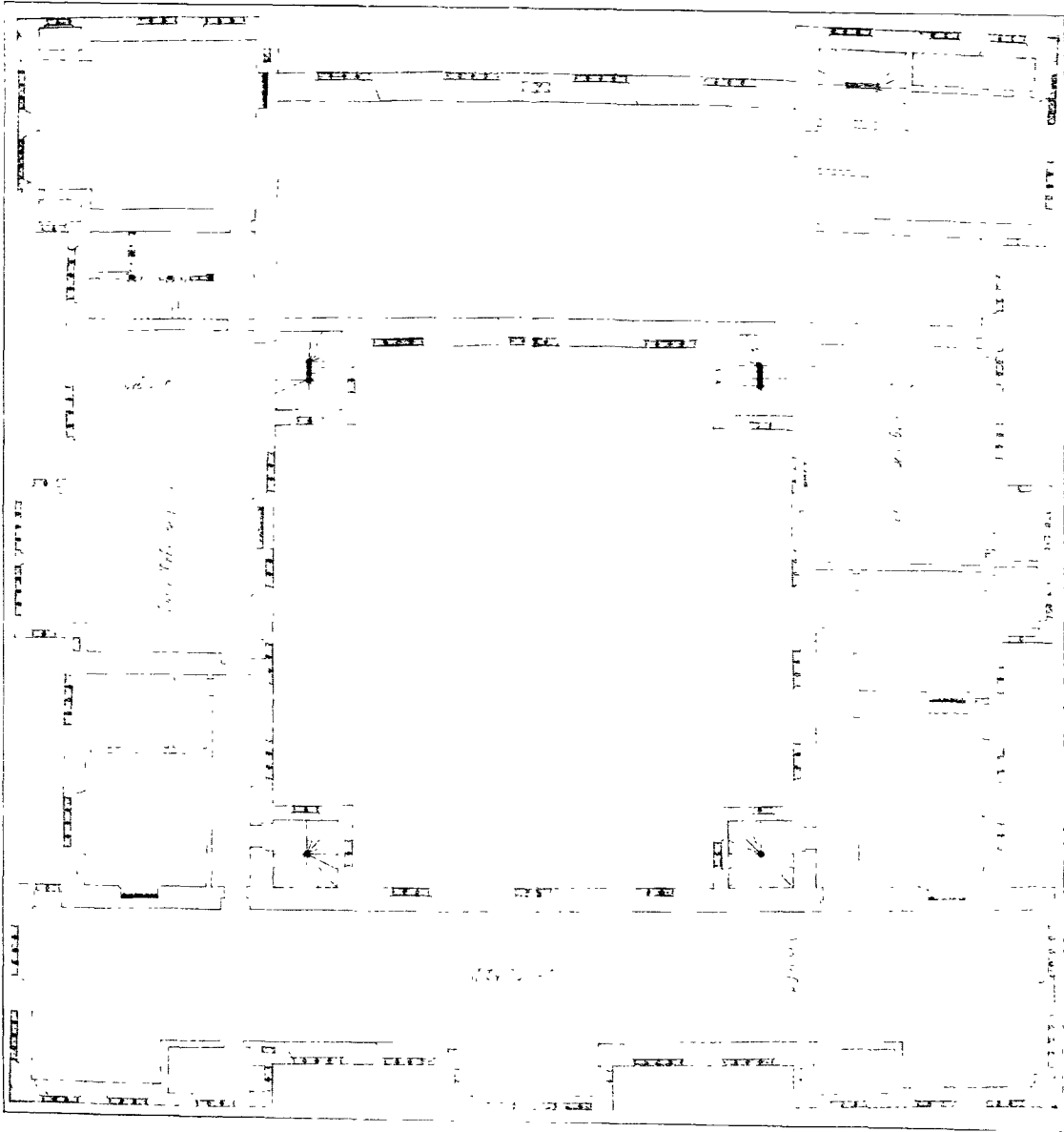


FIG. 11—UPPER PLAN OF "MY LORD SHEPHERD'S HOUSE" (SMITHSON COLLECTION, NO. 89) ON PARCHMENT.

of this wing was a large formal garden now obliterated. On each of the three chief fronts—the north, west, and south—a perfect symmetry is observed, window answering to window and turret to turret. The four square projections on the west front are all turrets; a lofty clock-tower covers the porch leading from the inner court towards the screens of the great hall,

and there is a terrace along the north front, the whole answering to Spenser's description of a "stately pallace,"

With many towres, and tarras mounted hye.

The south front has that favourite Italian feature, a loggia or open arcade, which here as in most instances, has now been enclosed and converted into dwelling-rooms.

The upper floor consists of a number of apartments, chiefly passage rooms, and of the long gallery, which occupies the whole of the west wing. This is now divided into a number of comparatively small chambers.

The plans are quite typical. There is the hall, with its dais, lying in the traditional relationship to the kitchens; a fine courtyard, a loggia, a long gallery, and numerous staircases, the whole contrived within a symmetrical outline. The large and busy bay-window over the north porch is also a characteristic feature.

The next plans, those of Thornton College, for Sir Vincent Skinner, are arranged on the **H** plan [figs. 3 and 4]. These are not dated, nor is it certain that they were ever carried out; but they must have been designed between the years 1603, when Sir Vincent Skinner was knighted, and 1611, when he died. They show a change from the traditional treatment of the hall. There is still a screen of a kind at the lower end, but it no longer cuts off a passage from which access to the servants' quarters can be obtained without entering the hall. On the contrary, it is essential to go into the hall in order to reach the kitchen from the front entrance. Nor does the hall lie quite in the usual way between the kitchen and the parlour, although the former may be reached from its lower end and the latter from its upper. The usual accommodation is provided. There are the hall, the chapel, the parlour, and one or two other rooms adjacent: the kitchen, pastry, larder, and pantry. Access to the upper floor is obtained by two fine staircases. The long gallery lies in the centre of the house over the hall and parlour—an unusual position, and one which divides the rooms from each other in a somewhat awkward fashion, leading to balconies being contrived so as to connect the wings without having to go through the gallery. There was a third story, as indicated by the numbering of the upper flight of stairs. There is also on the upper floor a room which is not often found on Thorpe's plans, namely, a "studdy." The planning of the ground floor necessitates the provision of several external doors in addition to the front door. This is another sign of change in arrangement: in the old days the front door was generally used for the whole traffic of the house, whether of the parlour or of the kitchen.

The third example from the Thorpe collection is a house for "Sir Walter Coap at Kensington, perfected p. me J. T." [fig. 5]. This is the house now known as Holland House. Its date is not definitely known. It is said to have been built in 1606. If so, John Thorpe's improvements would be of later date, and the plan of the hall confirms this view. It is frankly a vestibule. At Sir Vincent Skinner's the dais is still shown, and the room was intended as a living-room. Here there is no such intention. The entrance is central, and the traffic to the various doors cuts across the hall in every direction, leaving no space for a dais or for the accommodation of the family. The hall still lies, however, between the two main departments of the house. On one side are the parlours and grand staircase; on the other the kitchens and back stairs. The great chamber is over the hall; the long gallery is over a terrace or loggia. The kitchen is supplemented by an ample range of subsidiary rooms, dry and wet larders, bolting-house, pastry, pantry, and buttery. Among them is the winter parlour—placed there presumably for the sake of being near the kitchen. Here, again, the symmetry of each of the principal façades is exact. So far, indeed, is the desire for symmetry carried that a bay-window in the parlour, which breaks into the covered terrace, is balanced by one in the winter

parlour, which breaks into the kitchen—a refinement which could only be appreciated on a plan, and could have no value in the building itself.

The elevations illustrated are selected to show the change which came over the treatment of external design. The first is very busy, and full of fanciful if not actually fantastic

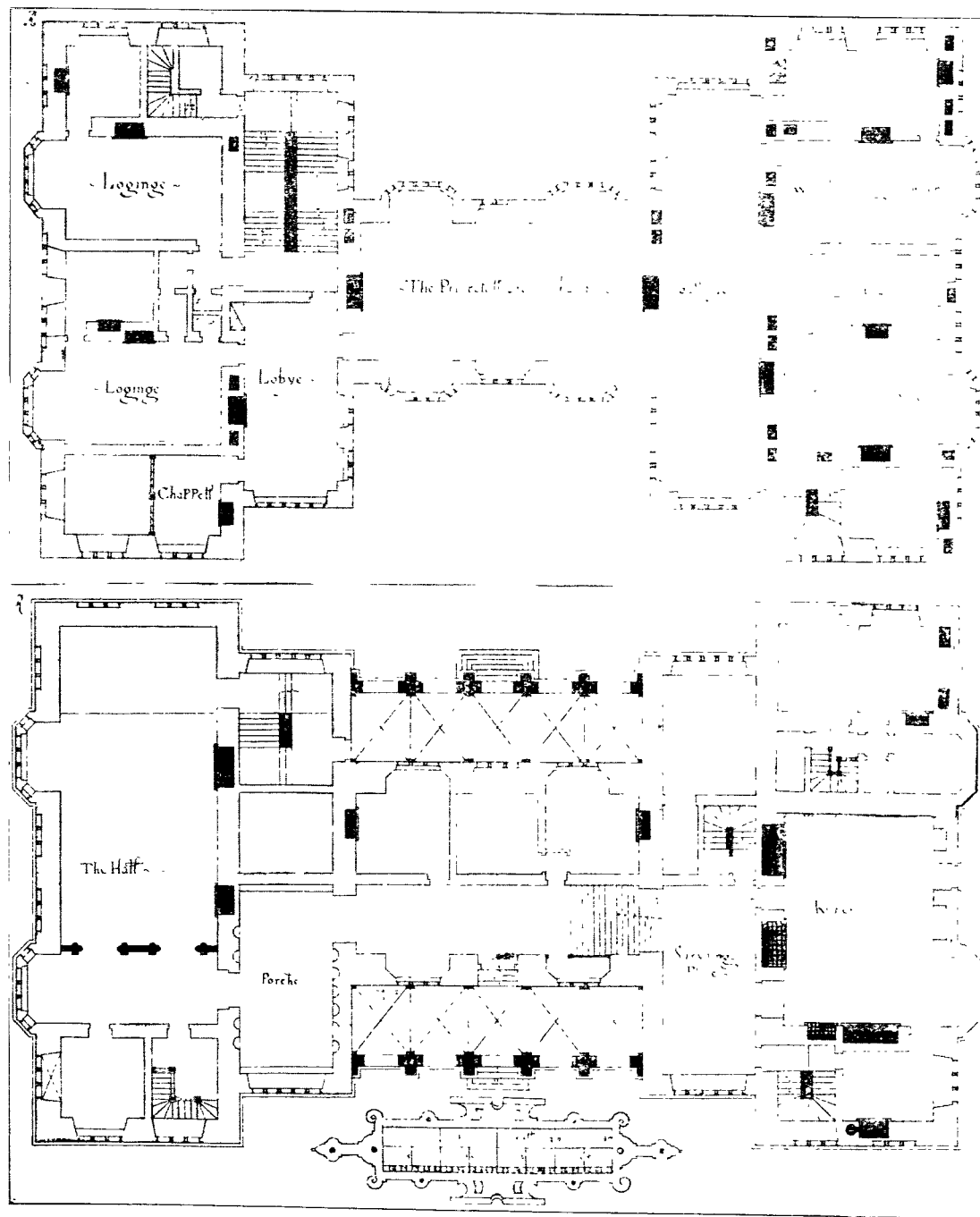


FIG. 12.—GROUND AND UPPER PLANS OF AN UNSHAPED HOUSE (SMITHSON COLLECTION, NOS. 76, 77)

features, such as the parapets of the bay-windows, the gables, the turret roofs, and the elaborate lantern on the roof [figs. 6 and 7]. The next is truly symmetrical and has all the appearance of being fairly late in date [fig. 8]. It has none of the frills of the former: everything is simple, sober, and staid. It stands midway between the extravagance of the first example and the extreme simplicity of the third, which is a rough sketch in pencil. This third example shows a marked tendency towards the severer classic which was shortly to come into vogue, and is quite free from the fanciful touches which give so much charm to Elizabethan houses [fig. 9]. There is nothing else so plain as this among Thorpe's elevations, and it seems to point towards the direction which house design was shortly to take.

Turning from Thorpe's to Smithson's drawings, we find on the whole a later feeling both in the plans, the elevations, and the details. Unhappily none of the plans which may be supposed to be original designs are dated, and it is impossible to bring the evidence of chronology to bear upon the question. Nor if we could would it be quite conclusive, because the development did not proceed regularly and universally. Some houses following an earlier type are later in date than others following a later type. But looking at them broadly and in the mass, those built towards the close of James's reign are distinctly different from those built in Elizabeth's.

The first example from Smithson's drawings is a house endorsed "For my lord Sheffield's house, by Smithson" [figs. 10 and 11]. This would be for Edmund, 3rd Baron Sheffield, of Butterwicke in Lincolnshire, who was created Earl of Mulgrave in 1626. The design must therefore be prior to that date.

The plans of this house follow to a large extent the traditional type. It is built round a courtyard, across which the way lies to a raised terrace, where, by turning to the right, the front door is reached in a projecting turret. This is a not infrequent arrangement of the period. It occurs in several of Thorpe's plans, and, among actual examples, at Burton Agnes and Chastleton. The screens are thus entered and the hall is found on the left, the way to the kitchens on the right. There is no *dais* shown, whereas nearly all Thorpe's plans retain that ancient feature. There is no buttery directly off the screens, but the room in the right-hand top corner may be intended for the purpose. The "cychinge" is named: next to it is the "pastry," with its two ovens: beyond are other rooms, not named, but evidently intended for the servants. Two staircases serve this wing.

From the upper end of the hall a series of "chambers" is approached communicating with each other by means of a corridor, itself an indication of increasing refinement. Here, too, is the grand staircase leading to the upper floor, where there is a large "dynynge chamber," as far away from the kitchen as it could be placed. Across this room goes the way to the long gallery, which occupies the whole of the entrance front. The remainder of this floor is devoted to "chambers," some of which are thoroughfare rooms, while some are approached by passages. The space over the "screens," usually thought of as the minstrels' gallery, is here merely a passage.

There was evidently another story above this, as, although the main staircase stops at this level, two subsidiary flights, placed in the corner turrets adjacent to the hall, start on this floor. It should be noted that "winders" are freely used in the smaller staircases—an expedient which Thorpe very seldom adopted. It should also be remarked that a number of sham windows are introduced in order to carry out the symmetrical treatment.

The next of the Smithson plans is of the **H** type [fig. 12]. It shows a considerable departure from traditional arrangement. The entrance leads into a spacious lobby: and the hall, instead of being close at hand, has to be sought. When found it has its screens and, oddly enough for so late a type, a *dais*. The screens do not lead to the kitchen, which is on the other side of

the house. But they have a room opening from them, which may be the buttery, and a small staircase leading down to the basement, not upwards, inasmuch as the chapel is immediately above. The kitchen is down some seventeen steps, and it is possible that this small staircase may have eventually led to the kitchen department. But the usual route for meals from

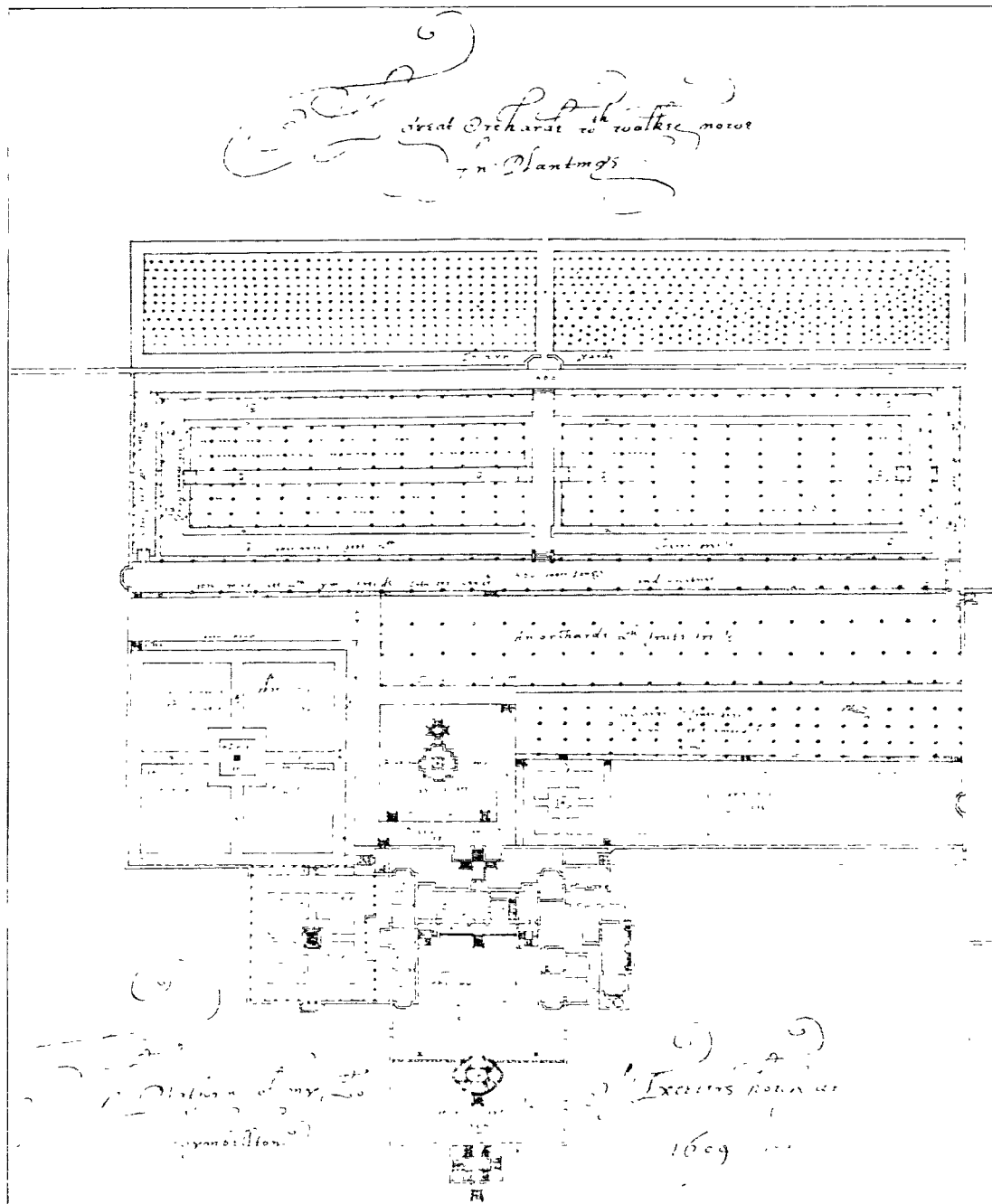
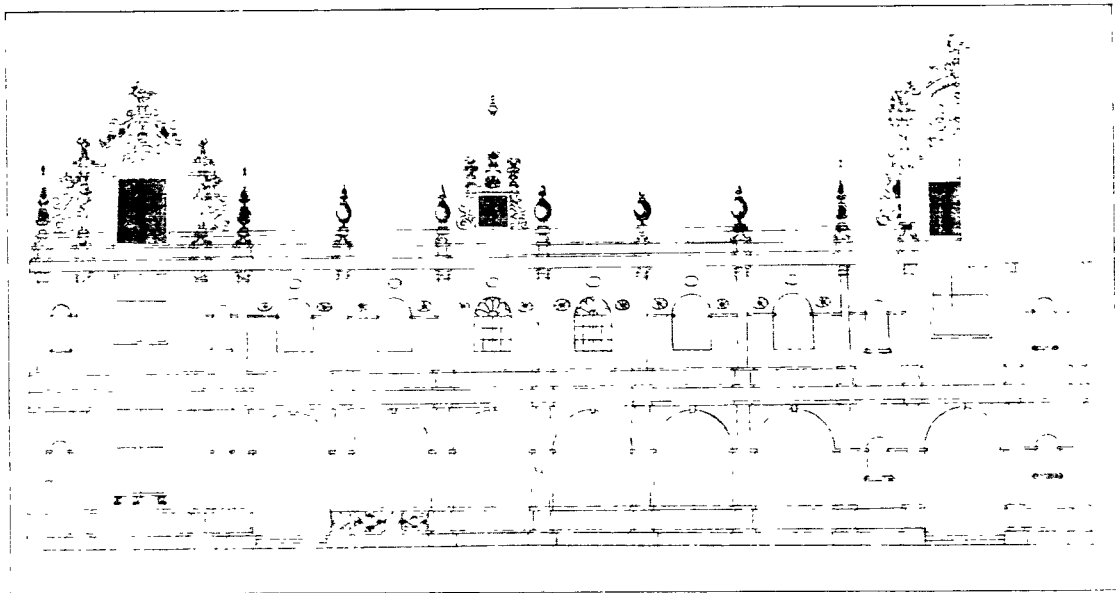
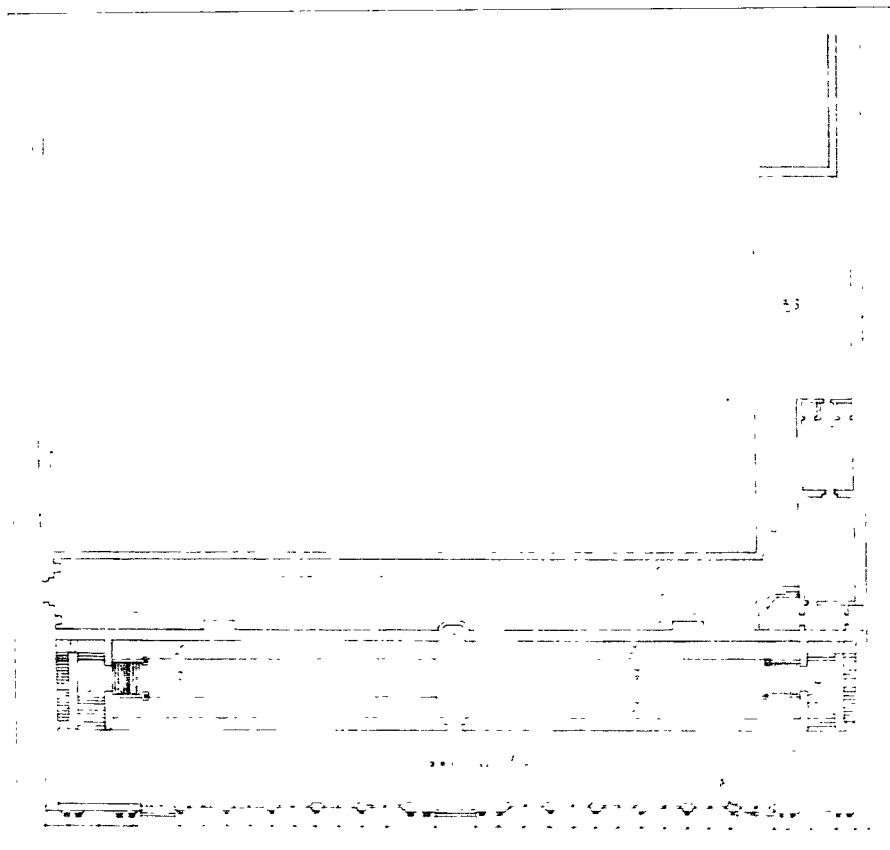


FIG. 14.—PLAN OF HOUSE AND LAY-OUT AT WIMBLEDON FOR "MY LORD OF EXETER," 1609 (SMITHSON COLLECTION, NO. 61)



11. 11.—EAST ELEVATION OF ANNEXE BUILDING. SHEET NO. 10. ELEVATION NO. 70.



12. 12.—PLAN OF ANNEXE BUILDING. SHEET NO. 11. PLAN NO. 71.

kitchen to hall must have been along the entrance vestibule, because of the position of the "Survainge place," or servery. This is a name which appears on most of Thorpe's plans also. The rest of the ground floor is cut up into small rooms without designations.

The grand stairs open from the dais of the hall and lead to the "Principall greate chamber," the "gallerie," "With drawinge chamber," "beade chambers" and "loginges" or bedrooms. There is also a "chappell" on this floor. All these rooms are to be found on Thorpe's plans: there is therefore no particular improvement to be noted in respect of accommodation in these later designs. It practically amounts to the same rooms being

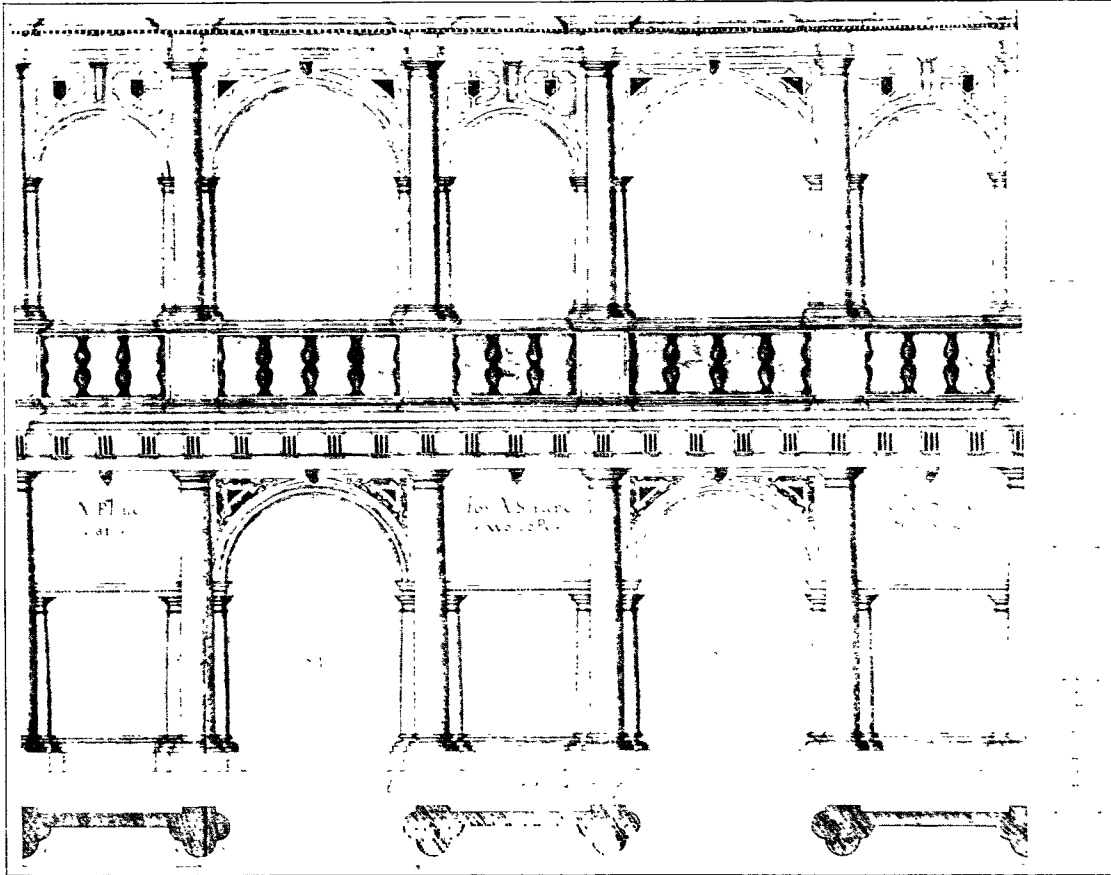


FIG. 16.—A SCREEN AT WORKSON MANOR, BY SMITHSON (SMITHSON COLLECTION, NO. 7).

shuffled, as it were, into new dispositions. But it is important to bear in mind that the change in the treatment of the hall opened the way to many other changes. It is curious to find that there are no sanitary arrangements shown on Smithson's plans. Thorpe frequently indicates them, and, although they generally contravene all the rules which we consider essential, there they are. What Smithson's views were in this respect we have no means of telling.

The symmetry which dominated Thorpe's plans is equally observable in Smithson's: if anything it is rather more tyrannical.

An investigation into development of houses of this period would be incomplete without some reference to their surroundings. But contemporary plans of their lay-outs are extremely rare. Fortunately Smithson supplies us with several highly interesting examples. There is

nothing of this kind in the Thorpe collection. He frequently indicates the position of the "garden," "orchard," and "woodyard": in one or two instances he shows a fragment of a garden with its beds. But he has no survey of the whole curtilage. From other sources we can obtain, to a very small scale, surveys of such great houses as Theobalds, Holdenby, and Kirby. But although highly interesting, they do not give the minute detail which Smithson presents in "The Platforme of my Lo. of Exeter's house at Wymbellton, 1609" [fig. 13].

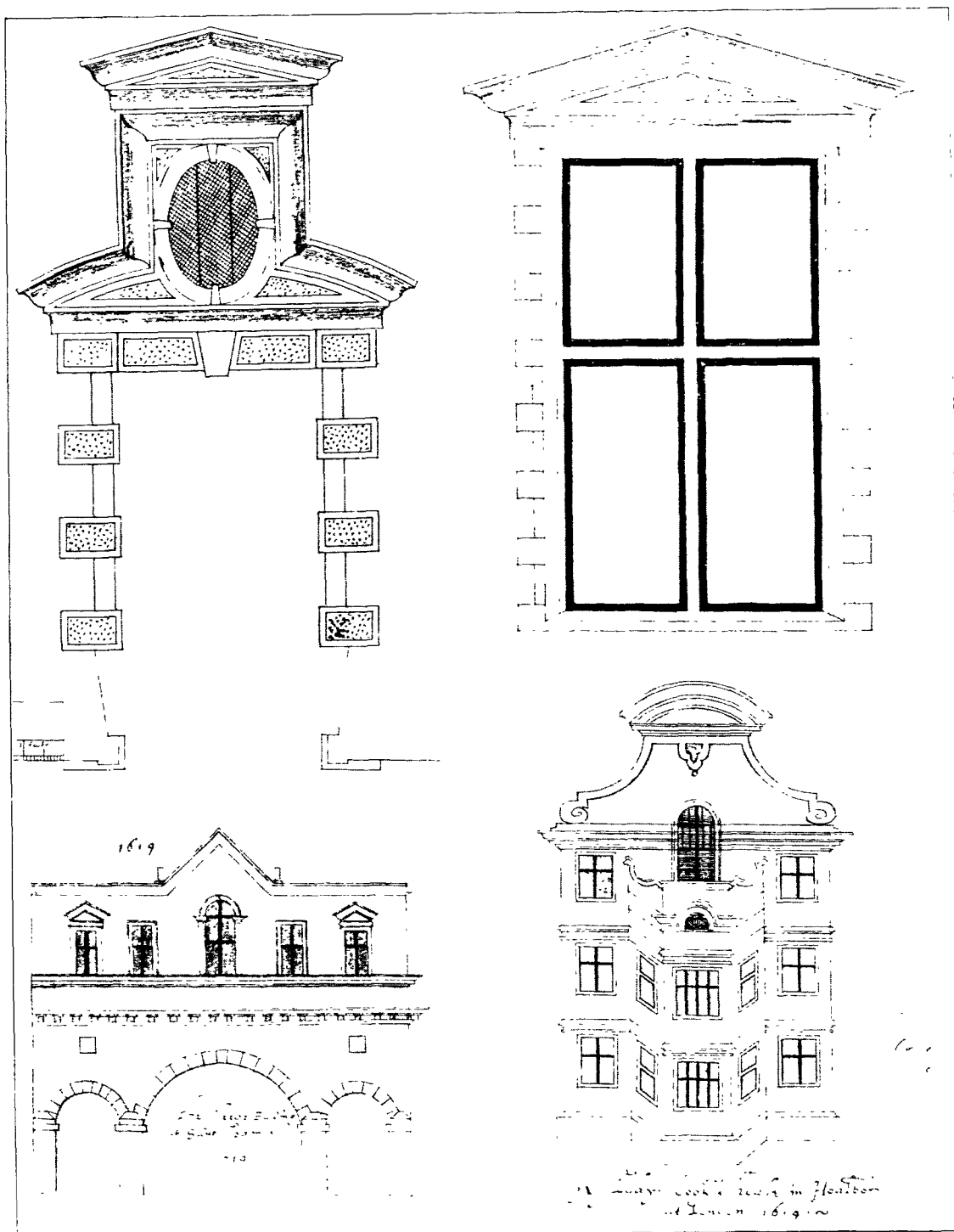
This house was built in 1588, the great year of the Spanish Armada. Thorpe has a plan of it called "Wymleton, An house standing on y^e edge of an hie hill": and he shows the two forecourts with their fine flights of steps leading down to the park. But Smithson's survey shows the whole of the splendid gardens, with their formal walks and flights of steps, the



FIG. 17.—ELEVATION OF PENSANCE BUILDING (SMITHSON COLLECTION, N. 150)

"banketing house," the "heges cut verie finely," the "orcharde with frute treese and roses sett amongst them," the "lyme treese both for shade and sweetnes," the "walls sett with roses," and "a great orchard with walkes nowe in plantinge." Some of the alleys are 660 feet long, and the whole lay-out is devised on a magnificent scale. It brings home to us in a vivid way the fact that splendid formal gardening was understood long before the period with which we are accustomed chiefly to associate it, the time when the third William brought over his Dutch fashions.

Smithson's elevations (which nearly all suffer in interest from having no corresponding plan) are not so quaint and fanciful as Thorpe's [fig. 7]. It would almost seem as though the closer study of text-books had begun to stifle the imagination of designers. There is a combination in one of them [figs. 14 and 15] of fanciful gables with a stately and rhythmic treatment of a facade, but the building has not been identified, although the arms and crest of the Earl of Salisbury



Detail of a doorway.

Detail of a window

"THE NEW BUILDING AT SAINT JAMES 1619," "MY LADY COOK'S HOUSE IN HOULBORN AT LONDON 1619" (SMITHSON COLLECTION, NO. 25).

are introduced in one of the gables. This change is also observable in the screen for Worksop Manor [fig. 16], which has much of that "Italian" feeling about it which Smithson appears to have highly prized, since he designates several of his drawings as the "Italian gate," the "Italian window," the "Italian grate." It is a fine and dignified composition, but it lacks the quaint play of fancy which pervades the wood screens of earlier days.

Fancy of a sort he did occasionally introduce into his detail, as may be seen in his drawing of an unnamed doorway [on fig. 18], but it is fancy of rather an elephantine order. He was undoubtedly an ingenious person, as is proved by his drawings of various implements, such as saws, a hinged ladder, an iron hanger over the kitchen fire at Bolsover, and others. But he was not nearly so ingenious in house planning as Thorpe was. The study of Thorpe's drawings is an intellectual treat. The study of Smithson's is interesting in the highest degree, but the interest is of a different kind—as much archaeological as architectural. There are more clues to the history of individual buildings to be found in the Smithson collection than in that of Thorpe. They are both invaluable in their way, and they give an illuminating insight into the methods of design at a remarkable period—remarkable not only because of the number and magnificence of the buildings it produced, but also because these buildings combined in themselves the old freedom of fancy with a new and serious effort at scientific planning.

Mr. St. John Hope kindly lent for exhibition tracings of some plans by another surveyor of Elizabeth's time, Henry Hawthorne, who was appointed Clerk of the Works at Windsor Castle in 1575, at 2s. per day. The plans show certain additions devised by Hawthorne in 1577.

CATALOGUE OF THE SMITHSON DRAWINGS

BELONGING TO COL. COKE OF BROOKHILL HALL, ALFRETON, SUSSEX.

1. Drawing, mounted.
A wall-tomb endorsed on drawing "Tomb at Derby."
For a member of the Cavendish family, as their motto, "Cavendo Tutus," is inscribed on it, and then, crest, a snake now, is shewn. The shields are blank.
2. Plan, mounted.
Title, written on mount, "Offices at Bolsover." Has two flyers, showing alternative plans for stairs. Scale, 8 feet to the inch. Endorsed, "Bolsover Grounds Plate."
3. Drawing, mounted.
Rectangular design of coloured inlay.
4. See No. 75.
5. Plan, mounted.
Endorsed on drawing "my lord Houghtons house."
Title, "my lord Houghton Plate at Houghton Anno 1618." Scale, 20 feet to the inch. Has two flyers gummed on, and a third now pinned on. The latter is No. 52 of the series.
John Holles of Houghton, in the county of Nottingham, was created Baron Houghton of Houghton, July 9, 1616. This plan was probably prepared for the enlargement of the house in consequence of the acquisition of the manor.
6. Plan, mounted.
Title, "The Plattonne of my Lo of Hectors house at Wymbellton 1609."
A survey, shewing the complete plan of the house, gardens and courts. Scale, about 60 feet to the inch. [Reproduced here, fig. 13.]
7. Drawing, mounted.
Title, written in red on the panels of the design, "A Platte for a Screen To bee Builde at Worsop Manner." Another title, written on the drawing in a later hand, "A Screen at Worsop Manner by Smithson."
Worsop is Worksop in Nottinghamshire.
Reproduced herewith, fig. 16.
8. Three drawings, mounted.
 1. Elevation and plan of a window, with shutters to open, gummed on. Title, "The upright draughte of an Italian wyndowe at Arendell House."
 2. Plan of vaulting over a square vestibule and two short passages.
 3. Design for an altar Tomb.
9. Three drawings, mounted.
 1. Plan and interior perspective of a small room with angle fireplace. Endorsed on drawing, "My Lo Richs vault at Bolsover."
 2. Elevation of a small gateway.
 3. Side elevation of a flight of steps.

10. Two drawings, mounted.
 1. Elevation of a house (no writing). Embattled parapet, straight and curved pediments to windows.
 2. Plan of a grand flight of steps up to a terrace. Scale, 8 feet to the inch.
11. Two drawings, mounted.
 1. Elevation of a house (no writing). Embattled parapet, straight and curved pediments to windows.
 2. Elevation and plan of a house. Scale, 20 feet to the inch. Names and dimensions of rooms given.
12. Three drawings, mounted.

All three are details of desk and shelves lining a small room.
13. Two drawings, mounted.
 1. Ground plan of a house. Scale, 18 feet to the inch. Names and dimensions of rooms given.
 2. Ground plan of another house. Scale, 10 feet to the inch. Names and dimensions of rooms given.
14. Two drawings, mounted.
 1. Plan entitled "The Banketinge house at the White Hall in London." Scale, 20 feet to the inch.
This plan does not agree with the actual building.
 2. Entitled "The fyrste storey of the Newe Banketinge house."
This, likewise, after a fashion, with the actual building.
15. Drawing, mounted.

Half elevation of a large mural monument (?), inlaid with marble.
16. Four drawings, mounted.
 1. Plan and view of a "seastorne," i.e. a cistern, or garden fountain.
 2. Another cistern.
 3. A bridge with one arch.
 4. A bridge with two arches.
17. Two drawings, mounted.
 1. Plan and elevation entitled, "The Plate of the Ridinge House at Welbeacke 1622." Scale, 20 feet to the inch. Diagram shewing the number of bricks required in a "roode of walle."
The elevation combines in one drawing the front and end elevations.
 2. Plan and section of the same building. The section combines with it a kind of elevation showing the longitudinal braces of the roof.
18. Three drawings, mounted.
 1. Half elevation of a chimney-piece.
 2. Two half elevations of chimney-pieces.
 3. Half elevation of a chimney-piece, entitled "A chymnye peece at Arundalle House 1619."
19. One drawing, mounted, shewing—

"The Plattorme of the garden at Arendell house."
 "The Italian gate over the watter" (a balcony).
 "A newe Italian wyndowe the gallerye at arrundell house."
 "The newe Italian gate at Arundell house in the garden there." Date in a panel, 1618.
20. Two plans, mounted.
 1. Figured survey of a house.
 2. The same house drawn to scale (about 40 feet to the inch), with two flyers gummed on to show proposed alterations.
Endorsed on drawing, "Werton Plates Sr George Chaworth"
Title, pinned on, "Wyverton."
21. Two drawings, mounted.
 1. Plan, elevation and section (24 feet to the inch) and detail of window of "The Princes Ridinge Place."
 2. Plan, apparently not drawn to scale, entitled "The Plattorme of The Castell of Shroeburye 1627 Auguste the 26th."
Endorsed "Shrewsbury Castle."
22. Two drawings, mounted.
 1. Plan of a house.
Title "Mr Nevelles house of Grove" "ska 16."
There is a flyer gummed on shewing alteration of hall, and another smaller one beneath it shewing a staircase. Endorsed on drawing "Grove." Rooms are named.
Grove is a parish in East Retford district, Nottinghamshire.
 2. Three elevations of stone screens.
23. One drawing, mounted.

A large monument with black and red panels, two red obelisks, and three female figures in panel at bottom (no writing).
24. One drawing, mounted.

Detail of a chimney-piece in Arundel House, with a letter below addressed to "Mr. Smithson" from "your loving friend, Tho: Ashby," saying that the lowest prize he will take to paterne it in every poynt is 100 pounds.
25. Four drawings, mounted.
 1. A doorway.
 2. A window.
 3. Elevation of "The Newe Bulding at Sant James 1619."
 4. Elevation of "My Ladye Cookes house in Houlborn at London 1619."
[Reproduced herewith, fig. 18.]
26. One drawing, unmounted but mended. No title.

Plan of Wollaton Hall and lay-out. The rooms of the house are shewn; facing each facade is a court, at the opposite end of which is a building; there are four in all, named respectively "The Gatte House," "The Stabell," "The Dairye and Laundre," "The Bakehouse and Bruehouse." Scale, 38 feet to the inch.
27. One drawing, mounted.

Plan of large house round a court-yard, and the lay-out of a large garden at the back. Scale, 38 feet to the inch. Title, "The Plattorme of my lord of Northamtons house in London."
28. Two drawings, mounted.
 1. Plan (about 60 feet to the inch), entitled "The Plattorme of Trinitie Collig in Cambrige." This is a plan of the Great Court; as it shows the fountain, the hall and the kitchen, it must have been made subsequent to 1605, but there is no date.
 2. Plan (50 feet to the inch) of a house and garden. The rooms are named. On the inner court is written, "Iner Courte of my Lo. of Wosters house at Nonesuche."
29. Two drawings, mounted.
 1. Plan, to a small scale, entitled "Kinges Collige Chappell at Cambrige." Plan (40 feet to the inch), entitled "The Plattorme of y^e Kinges Stabell: at Tyballes." Tyballes is Theobalds, in Hertfordshire. The plan shews standings for 98 horses. There is a hay-barn and hawks-mew, but no coach-house.

2. A plan, to a small scale, entitled "The Platoune of the Kings Chapell at Westminster." Shews the tomb of "Queen Elyzabeth" and "Henri 7." Five small line-drawings, entitled "The Vault of y^e Route of the Kings Chapell at Westminster," "The Vault of a Route at Entelance in to the Chapell," "A Wyndowe in Westminster."
20. One drawing, mounted.
Detail elevation and plan of a wheel window (scale between $\frac{1}{2}$ and 1 inch to the foot). A very careful drawing, shewing construction of stonework. Dat. 11799.
31. One drawing, mounted.
Plan (about 48 feet to the inch), entitled "The Platoune of Somersett Gardens." It shews the whole lay-out from the Strand to the river Thames. One court is entitled "The newe additions at Somersett house."
32. One drawing, mounted.
Plan and elevational perspective, to large scale, of a garden-house or temple. There is a mutilated title written partly on the drawing and partly on the mount, "design'd . . . Lincolne Wood." The style is later than Smithson's.
33. Two drawings, mounted.
 1. Perspective of a house, with a new "embattled wing."
 2. Elevation of a house, entitled "The Fronte of Bathes House: Sir Iouke Greyvelles in houlborne 1619."
34. One drawing, mounted.
Elevational perspective of a semi-gothic mountain.
35. One drawing, mounted.
Plan of a house and forecourt with gate-house. Names and dimensions of rooms given. Neatly drawn and tinted. Scale, 20 feet to the inch.
36. Two drawings, mounted.
 1. Plan and elevational perspective, entitled "The Platoune of The Stabell At Clytton, Jemave v. : 20 : 1632." Scale, 10 feet to the inch. There are two flyes shewing proposed alteration, or an alternative arrangement. Clytton is Clifton near Nottingham.
 2. Plan of "The Banketinge House" (8 feet to the inch). This seems to be the plan of "A Porter's lodge for Clifton" on No. 54. Endorsed "Clifton."
37. Two drawings, mounted.
 1. Elevation of a wall-tomb in pencil. Endorsed on drawing, "Tombe Plattes."
 2. Altar Tomb, in ink.
38. One drawing, mounted.
Elevation of a wall-tomb.
39. One drawing, mounted.
Half-elevation of a wall-tomb.
40. One drawing, mounted.
Elevation of a gateway ($\frac{1}{2}$ inch to the foot).
41. Three drawings, mounted.
 1. Plan of a house, with no writing and no scale.
 2. Plan of a house, with no writing and no scale, but it closely resembles Hardwick Hall, Derbyshire.
 3. Plan of a house, with no writing. Scale, 38 feet to the inch.
42. Two drawings, mounted.
 1. Plan and elevation of a porch (this inch to the foot).
 2. Plan of parapet of same, endorsed "A very good Porch at Welbeck." "B."
43. One drawing, mounted.
A doorway. Scale, 1 inch to the foot.
44. One drawing, mounted.
A wall-tomb with shield at top, partly perished, on dexter side is written "Solomonminster. Cal." above is a crest (tower) a stag trampling (Crest probably for Cavendish).
45. Two drawings, mounted.
 1. A doorway, to a large scale.
 2. Another doorway. Scale, $\frac{1}{10}$ inch to the foot.
46. Two drawings, mounted.
 1. Basement plan of a house.
 2. Ground plan of the same, entitled "A House for Blackwell in the Parcke." No scale and no writing except title. Blackwell is a parish near Alnston, Derbyshire.
47. Four drawings, mounted.
 1. Section of a building of two storeys, with a flat roof, shewing an elliptical arch with Jacobean spandrels, endorsed on drawing "A type arch of wood for a" (remainder cut away). Scale, 5 feet to the inch.
There is also the following note on the back:
"of perper from the grate" 6468 feet
chamber end to the kitchen
of coupunge creaste for the 234 footes
same end.
 2. Plan and elevation of stamper, with a goblet on at summit. Scale, 1 inch to the foot.
 3. Side elevation of bedstead with sloping footboard. Scale $\frac{1}{2}$ inch to the foot.
 4. Sketch for a wood screen with panels variously ornamented, endorsed "wayn-skett."
48. Two drawings, mounted.
 1. Plan of a house and lay-out, to a small scale. On it is written "The Inner court of my Lo. of Bedfords at Twitnam [Twickenham]. Names and dimensions given.
 2. Plan to a small scale, entitled "Sir Percevalles Willoughbyes Newe Orchaude at Wollaton Ann. Dom. 1618."
49. Two drawings, mounted.
 1. Plan of a house, not named. Scale, 12 feet to the inch.
 2. Plan of a house, entitled "Mr. Diball, 1622."
50. Seven drawings, mounted.
 1. Three lantern-lights, or glazed turrets, endorsed "Platte of very good types."
 2. A column with the springing of two arches.
 3. Two ball finials.
 4. Four small drawings, entitled "A name sawe for the sawinge of wayn-skotes," "A lader for hanginge," "A sawe for Blacke steele," "A syce for settinge of Lyme."
 5. Plan and elevation of a turret.
 6. A turret. An archway.
 7. A saw and pruning knife. Endorsed "A Platte for a Sawe."
51. One drawing, unmounted.
Plan of a large house built round a court, and having a north court with gate-house and corner pavilions, and a back court. Scale, 28 feet to the inch. No writing.

52. Is the flyer pinned on No. 5.
53. Two drawings, mounted.
1. Elevation of the left-hand half of the arcaded front of a building. Scale, about 10 feet to the inch.
 2. Plan of the same, showing the whole front, with a "closter 202 foote long," behind which is a long narrow room or gallery, and behind this a court. Scale, about 32 feet to the inch.
- On one gable of the elevation are the supporters and crest of the Earl of Salisbury. The middle gable has a crest on its pinnacle (not identified).
Reproduced herewith, figs 14 and 15.
54. Four drawings, mounted.
1. Detail of "The Pergular at Coronall Sissells House in the Strande."
 2. Elevation of a gateway flanked by two circular turrets, entitled "A Porters Lodge for Clifton."
This appears to be the elevation of the plan on No. 36.
 3. Elevation of "A summer-house at Chealsea."
 4. Plan and elevational perspective entitled "The Neve Platt at Twytorde." Scale, about 16 feet to the inch. Names and dimensions of rooms given.
55. Three drawings, mounted.
1. Elevation, entitled "Stable at Welbeck."
 2. Plan of same, entitled "Platt form of y^e Stable." Scale, about 14 feet to the inch.
 3. Drawing, entitled "1623 The Platforme of a frame: For the Teachinge of a yonge Horse: Before Hee come To the Ridinge."
56. One drawing, mounted.
Elevation of a wall-tomb surmounted by a bear with a ragged staff.
This is intended for the tomb of the Earl of Leicester in St. Mary's Church, Warwick; but the proportions of most of the features are wrong.
57. Two drawings, mounted.
1. Elevation of fountain or conduit (?).
 2. Plan of a similar object, but apparently not that of the elevation.
58. Drawing, unmounted.
Plan of a house, 3rd storey, shewing long gallery.
59. Drawing, unmounted.
Plan of same house, ground storey; scale 16 feet to the inch.
60. Drawing, unmounted.
Plan of same house, 2nd storey, with two flyers shewing alternative arrangements.
These three drawings are very neatly drawn, the walls are tinted. Each of the three is marked A on the back. Scale, 16 feet to the inch. Some rooms are named in the same writing as most of that on the mounts.
61. Drawing, unmounted.
Basement plan of a house with gardens and terrace, gatehouse, and garden-houses; the whole surrounded by a moat.
62. Ground plan (unmounted) of the same house, endorsed "Slingsby." Scale, 24 feet to the inch.
These two plans are marked B in the left-hand top corner. Neatly drawn in same style as 58-60. No writing.
63. Drawing, mounted.
Detail elevation of a two-storey gable of a house with windows, pilasters and a pediment.
64. Drawing, unmounted.
Upper plan of a large house of the H type, marked A on front. No writing, no scale.
65. Drawing, unmounted.
Survey of "a great castle" not named; it is, however, Warwick Castle. No scale given.
66. Eight drawings, mounted.
1. Detail of panelling, entitled "The Platte of the Seelinge of the greate chamber at Thyballes taken the 8th of November: 1618: By Jo: S:."
"Seelinge" means panelling or wain-coting.
"Thyballes" is Theobalds.
 2. Two carved panels or cartouches.
 3. A strap-work panel.
 4. 5. Details of a stone wheel-window.
 6. A grotesque pilaster.
 7. Half-elevation of a stone screen.
 8. A strap-work ornament.
67. Two drawings, mounted.
1. Plan of a long narrow house, with hall, great chamber, withdrawing-rooms and chapel all on ground floor: a "steeple" at one end in the shape of a circular bay-window. Scale, 20 feet to the inch.
 2. Plan of a house of H type with circular turrets at the angles. The hall has screens at each end. No scale, no writing.
68. Drawing, unmounted.
"A plan of Nottingham Castle taken by Mr. Smithson in 1617." Scale, about 24 feet to the inch.
69. Two drawings, mounted.
1. Detail of an important gateway. Scale, half-inch to the foot.
 2. Detail of a doorway with pediment. Probably to same scale.
70. Two drawings, mounted.
1. Plan of house and lay-out to a small scale. Entitled "The Plattoine of Sui Tho: Vave-ers house at Peterson in Surree."
 2. Plan of a large house to a small scale. The shape is curious, being rounded on a quatrefoil.
71. Two drawings, mounted.
1. Plan and section of a small domed building; no scale.
 2. Elevation of part of the facade of a house, entitled "Part of A house designed by Smithson for Morton Corbet in Shropshire 1627."
Moreton Corbet is dated 1579, and D.R. 21.
72. Four drawings, mounted.
1. Detail of a gateway, entitled "An Italian gate in my Lo. of Arundelles garden at London: at Arundell house."
Elevation of a narrow house, entitled "The fronte of house over agaynste the newe exchange."
 2. Elevational perspective of half the front of a house, only partly finished.
This is Wollaton Hall. The part which is finished is the front elevation of one of the corner pavilions. It is practically true to the actual building.
 3. Plan and elevation of a small two-storey building over an ornamental canal. A flyer shows the upper floor. Scale, 10 feet to the inch.
 4. Elevation of a stone screen.
73. One drawing, mounted.
Plan of a house, with notes. Apparently a survey. Title written on the mount, "Worsop Manor." Scale, 20 feet to the inch.

74. Seven drawings, mounted.
Four of these show a "Blew-house" and its fittings.
Scale, 28 feet to the inch.
Another shows five plans of a small house, entitled
"good ground platte for little houses."
The two others are plans of a similar small house.
Scale for the small houses, 20 feet to the inch.
- 75, 77, 78, 4. Four drawings, unmounted.
They show respectively the second storey, ground
plan, first storey and roof plan of a large house,
to a scale of 12 feet to the inch. They are very
carefully drawn. The names of the rooms are in
red. The scales are elaborately drawn and shaded.
There are divers on 77, showing alternative arrange-
ments. They are all marked C in the top left-hand
corner. Reproduced in the *Journal R.I.B.A.*,
23rd March 1907.
- 76, 79. Two drawings, unmounted.
They are respectively the ground plan and upper
plan of a house, to a scale of 12 feet to the inch.
They are got up in the same careful manner as
75, 77, 78, and are marked B in the top left-hand
corner. There is a diver on No. 76. Rooms are
named in red.
[Reproduced herewith, fig. 12.]
80. Drawing, unmounted.
Elevation of a house, slightly coloured.
Reproduced herewith, fig. 17.
81. Two drawings, mounted.
1. A chimney-piece, entitled in pencil "haile
chimney". This is at Bolsover Castle.
2. A large chimney-piece with square openings; it
has carved mize, and human busts surmounting
long pedestals. Front elevation and part side
elevation.
82. One drawing, mounted.
Part elevation and plans of "A Screen by Smithson."
Scale (drawn at side) rather larger than $\frac{1}{2}$ inch to
the foot.
83. Drawing, unmounted.
Detail of the pedestal of a column, or perhaps the
die in a parapet. The paper is cut roughly to the
shape of the drawing.
84. Drawing unmounted.
Detail of a bay or a late-Gothic screen or pedestal?
There is nothing to indicate by whom drawn, but
almost certainly it is not by Smithson.
85. Drawing on a strip of parchment.
Plan and perspective of a tabernacle (?) of Round
late-Gothic character. Is it a canopied niche?
Endorsed (probably by Smithson) "Platt of a
tourt" but it is not a tour.
86. Drawing on parchment with a plan on back cut
through at right angles.
Perspective elevation of part of a late-Gothic build-
ing four storeys high, with turrets. (Date about
1500, or a little earlier.)
87. Drawing on parchment.
Ground plan of a large house round a court. The
out-plot is similar to that of Nos. 75-79. The scale
(12 feet to the inch) is carefully drawn and
shaded. No writing.
88. Drawing on parchment.
Ground plan of a large house round a court. The
out-plot is similar to that of 87. The scale is 12 feet
to the inch, seven feet elaborate. Endorsed
"For my Lord Sheffield's House."
9. Drawing on parchment.
Plan of upper floor of No. 88, endorsed "For my
Lord Sheffield's House by Smithson." Both
plans have the names and dimensions of rooms.
Reproduced herewith, figs. 10 and 11.
Edmund, third baron Sheffield, of Butterwicks,
co. Lincoln, was made a Knight of the Garter by
Queen Elizabeth; he distinguished himself at
the defeat of the Armada. He was constituted
by James I. president of the Council for the
northern part of the realm; and was created by
Charles I. Earl of Mulgrave on February 7,
1626. He died at the age of eighty in 1646.
These plans were then tore prepared before 1626.
97. One drawing, mounted.
Three elevations of a small red-brick building
entitled "The Back Front," "The Front," "A
Side."
This writing resembles that of the titles and
endorsements which are written on the mounts.
Is it the writing of the same person who mounted
Smithson's drawings? The style of the building
is of the latter half of the 17th century.
98. Drawing, unmounted.
Sketch for an alcove and flights of steps. Not by
Smithson, but later. Entitled in a fresh hand,
"Dean Tarns."
101. Drawing, unmounted.
A small sketch to scale of a kitchen fire, with non-
crane holding a cauldron. Entitled by Smithson,
"A Platt for Bolsover Kitching Chimney."
102. Drawing, unmounted.
Detail of a chimney-piece. Not by Smithson, some-
what later in style.
105. Drawing, unmounted.
Plan of lay-out with a garden-house shown in eleva-
tion. No writing, but the style is much later than
Smithson's; corresponds with that of No. 97.
109. Drawing, mounted.
Sketch (to scale) of a mural monument. Doubtful
if by Smithson.
112. Drawing, mounted.
Elevation of a chimney-piece, executed in sepia,
shaded, some panels red. Signed "Lew. Cocker."
- 113 (or possibly 173). Drawing, mounted and surrounded
with border lines.
Rough sketch in sepia freely executed, of the in-
terior of a colonnaded and domed building,
marked at bottom "Pynaker."
114. Drawing unmounted.
Freely executed sketch in sepia, shaded, of a long
panel with armorial: a cartouche in the centre
supports an Earl's coronet. Entitled "Mr.
Bouquet ft." Reproduced in *handpiece*, p. 41.
115. Drawing, unmounted.
Sketch for overmantel of two panels freely executed
in sepia. Panels contain armorial, heraldic shields
(lions and lions) and shields surmounted by earl's
coronets; one shield is blank the other has exchequer
G.W. Entitled "Mr. Bouquet."
124. Drawing, unmounted.
Ground plan of a house, entitled "to Balwell
House."
125. Drawing, unmounted.
Part of upper plan, entitled "The first Floor for
Balwell Park."
These two plans are considerably later in date.

THE WATERMARKS.

Since the Paper and Catalogue were put into type I have examined the watermarks of the drawings and the mounts, and, as the results of the examination are not without interest and may help towards further elucidation, they are here appended.

Nearly all the sheets of paper on which the drawings are mounted have the same watermark—namely, a paled enclosure with a gate in the front, within which is a lion rampant, crowned, armed in its dexter paw with a sword, in its sinister with a sheaf of thunderbolts. On the fence, to the right, sits a female figure, crowned, holding in the right hand a lance, on the point of which is a hat. Above the enclosure are the words *PRO PATRIA*. This device is towards the right-hand end of the sheet. To the left-hand end is sometimes the device *GR*, surmounted by a royal crown, and sometimes the letters *C A W*. In two cases there are the letters *A B*. The “*Pro Patria*” watermark occurs on fifty-eight out of the sixty-five mounts. Of the remaining seven, four have the device of a shield bearing a cross and a dagger in the first quarter. The remaining three are all different, and only one need be specifically mentioned: it is a large fleur-de-lys. If the *GR* with the royal crown refers to King George, it points to the reign of George I. as the period when the drawings were mounted. Apparently the person who mounted them wrote many of the titles against them—sometimes on the mount and sometimes on the drawings themselves. It also looks as though the names of the rooms were in some cases written by this person. In his writing likewise are such titles as “A screen at Worsop Mannor by Smithson,” “A screen by Smithson,” “A plan of Nottingham Castle taken by Mr. Smithson in 1617,” “Part of A house designed by Smithson for Morton Corbet in Shropshire 1627.” If this is so, it would appear that some person in the second decade of the eighteenth century mounted and described in an authoritative way the drawings which had been made a hundred years before. Such a proceeding would be quite intelligible in anyone who had been actually in touch with Smithson, but is not so easily accounted for in one living a century afterwards; and yet the *GR* with the royal crown points to the later date.

Nearly the whole of the drawings themselves have, as might be expected, watermarks quite different from those on the mounts. But three of them are actually drawn on the “*Pro Patria*” paper—namely, No. 32, a garden-house, or temple; 98, “*Dean Tarras*”; and 102, a chimney-piece. All these are obviously later in style than Smithson’s drawings.

A piece of the mount-paper with the shield bearing a cross and dagger has been used for No. 115, the charming panels marked “*Mr Boujet f.*” So, apparently, M. Boujet (presumably a skilful French draughtsman) was at hand when some of the drawings were mounted.

One drawing, No. 63, is mounted on paper with a large fleur-de-lys as watermark. Two other drawings are themselves drawn on paper bearing portions of the same watermark, namely 71, the drawing of the Morton Corbet house: and 97, which shows three elevations of a late house, with titles in the handwriting of the person who did the mounting. The style of this house is not inconsistent with the period of George I. Going back to the Morton Corbet house (71), the drawing must almost certainly be by the “*mounter*,” and his attribution of it to Smithson, under the date 1627, must have been from hearsay evidence. It is curious to note that the date on the house itself is 1579: E.R. 21. As Elizabeth completed her twenty-first year on the 16th November 1579, the date seems fixed fairly closely, and it is at variance with the year 1627 as stated on the mount.

If it were possible to fix the dates of these watermarks, we should get within a little of the actual date of the mounting. It would at least appear as though they were all mounted at the same time, and nearly all on sheets from one parcel of paper.

The watermarks on the drawings themselves are not very helpful in classifying or dating them, and theories founded on similarities would hardly be safe. The most prevalent marks are: a jug of varying patterns but in the main alike: a small bunch of grapes: a large bunch of grapes: an ornamental H: an eagle displayed: and a late strap work shield with a complicated device on it, which includes a heart and a bugle. This last is of some interest, inasmuch as of the drawings on which it occurs one is No. 21, the plan of Shrewsbury Castle, 1627; another is No. 24, the drawing, by Thomas Ashby, of a chimney-piece in Arundel House: another (25) is Lady Cook's house in Holborn, 1619: another (33) is Sir Fulke Greville's house in Holborn, 1619: and yet another (112) the chimney-piece signed "Edw. Cocket," which establishes an interesting link between him and Smithson, and gives his drawing an approximate date.

It is possible that a further investigation of the watermarks might lead to further results, especially if even approximate dates could be assigned to them. It is not, however, easy to decipher them through the double thickness of paper.

It should be added that some of the drawings have been endorsed before being mounted, apparently in a handwriting somewhat later than Smithson's, but earlier than that of the mounter.

DISCUSSION ON MR. GOTCH'S PAPER.

The President, Mr. ERNEST GEORGE, in the Chair.

MR. E. GUY DAWBER [F.] said it gave him very great pleasure to propose a vote of thanks to Mr. Gotch. It was a special treat to have had perhaps the greatest authority in England on this subject to lecture to them and to explain the plans in such a lucid and happy manner as Mr. Gotch had done. They ought also to thank Colonel Coke, through Mr. Gotch, for so very kindly lending the original drawings, and he would like to suggest that they be allowed to remain on the walls a few days longer, so that members might be able to see them more at leisure. The Paper was so full of interest, so very deep, and so learned—as it would be from Mr. Gotch—that it was impossible to touch upon more than a few points; but one of the first and principal things that struck him was the beauty of the plans, especially those of Thorpe, in the symmetry of design, the dignity of lay-out, and the arrangement of the forecourt and its subsidiary buildings. In some of the principal ones, the arrangements, with the large courtyard and pavilions at the corners, and the entrance gateways, were a lesson in dignified planning which they ought to study and embody in their own work wherever possible. He felt that these subsidiary parts of the design, which gave so much value to the main building, were slightly neglected to-day, and that they confined themselves to the building only, and the surroundings were left to be built in a somewhat haphazard way. Mr. Gotch had dealt most exhaustively with the hall, showing that from very early times this was the main idea, the nucleus of the whole plan; and it was interesting to note, especially in the part

of the country that he (Mr. Dawber) was intimately connected with—the Cotswold district—that this central hall in small houses lasted for a very much longer period than it did in the large houses of which plans had been shown. There were numerous houses for the yeoman class in Gloucestershire where the old mediæval plan was adhered to, he believed, right down to nearly the close of the eighteenth century. It was interesting to see that the tradition of these out-of-the-way places influenced the design of the building to a very large extent. Another thing to be noticed was that the early plans of Thorpe showed the open arcade borrowed direct from Italy, and, as time went on, he supposed it was found to be inapplicable. Perhaps Mr. Gotch would say whether there was any reason other than the exigencies of climate for its being abandoned. There were a large number of houses in the Cotswold district which had a symmetrical lay-out, with outbuildings, just as Mr. Gotch had shown in some of his illustrations. He had always felt that this straggling plan was due in some measure to the roofing of the houses. In the early houses of the Tudor and Elizabethan period they were always roofed in one span, and he fancied that that influenced the planning to some extent, and compelled the architects to place their buildings round a central square. Nearly all the plans thrown on the screen showed that they could be roofed in one single span. Perhaps Mr. Gotch would be able to tell them whether there was anything in that theory. Another point the paper dealt with was that many of these houses were worked from actual drawings. There was an idea

amongst some architects that these houses in the country were simply done by workmen. That could not have been so in the case of these large houses. The designs and drawings were made, as the plans exhibited by Mr. Gotch showed; they were doubtless thought out and the structures went on, and this was proved by the notes and corrections made on the margins of the plans. The smaller houses, no doubt, were built by the workmen according to their own ideas; but the larger ones must have been built from some designs.

MR. R. PHENE SPIERS, F.S.A. [F.], in seconding the vote of thanks, said he wished to echo the sentiment of Mr. Guy Dawber with regard to the great treat Mr. Gotch had given them in borrowing these interesting old drawings. They all recognised in Mr. Gotch a master of the subject, being aware that he had been for many years acquiring knowledge of all that had passed in the buildings erected in the time of Elizabeth; it was very interesting therefore to follow the different arrangements he had explained on the plans. There were a few points upon which he should like to ask information. First as to the question whether there were not two John Thorpes. It was a matter of interest to note that even in the dates Mr. Gotch had given of the first design and of the latest drawing, 1570 and 1621—fifty years was a very long period for a man to be in extensive practice. Also it was singular that the first one of 1570 should be on the plan of that immense house Kirby Hall. It had been suggested, and in fact it was now recognised, that there were two John Thorpes, father and son. There was a record in Peacham's *The Gentleman's Exercise*, published in 1612, in which reference was made to a coat-of-arms granted to Abbot Thorpe of Thame whose descendants were John Thorpe and his son John Thorpe, both surveyors. That proved there must have been two John Thorpes. Then also with regard to 1621 as the latest date: the plan of "Cannons for Lady Lake" is among Thorpe's drawings. Sir Thomas died in 1630, his widow in 1642. Supposing, for the sake of argument, we take the middle date, and assume that the Thorpe who designed this house died in 1634, giving him seventy years, he was born in 1566, and in 1570, when he laid the foundation of Kirby, he would be only four years old; even supposing the last drawing he made was in 1621, it is not likely that he would have laid the foundation of such a magnificent house at the age of twenty. He should be glad if Mr. Gotch would give them any information on the matter. The only trouble was that in the drawings in Thorpe's book there was no evidence of two persons' work; there was the same handwriting on the Kirby plan as on the latest drawings. Therefore it was extremely difficult to know whether two persons could be brought in. Another point, could Mr. Gotch give any possible date for the plan of Holland House, when it was drawn by John Thorpe, who had written at the bottom

"For Sir Walter Coop—perfected by me"? It was in two inks, the darker centre portion would suggest that it was an earlier house to which John Thorpe had been called upon to add. But the additions are said to be of a later date. The centre portion of the house consisted of a hall and two wings. Beyond these on each side additional wings had been added, and an arcade in front. The first house that Sir Walter Cope built in 1607 one might assume was the central portion of the house, and the "perfected by me" on the drawing made by Thorpe referred to the wings; but the wings were said to have been built in 1624 for Sir Henry Rich, son-in-law of Sir Walter Cope. If it was 1624, and it was built for Sir Henry Rich, how was it that John Thorpe, if he made additions, did not mention the name of his client, who would be Sir Henry Rich at that time? There was another point Mr. Gotch had studied. In his book on the later Renaissance he had referred to a copy-book which was issued by Jean de Vries of Antwerp, who published works which he believed had more effect upon English architecture at this time than possibly any others. There were in the Library a series of volumes presented by Mr. Van Ysenlyck in which he had reproduced a very large number of the drawings of de Vries, and from the time that his book was published in 1577 we see the details from it carried out in English buildings. In Holland House, for instance, all the pilasters of arcade and house were decorated with strap work apparently copied from de Vries' *Architecture* of 1577, so it seemed almost certain that the architect of Holland House must have obtained this book and taken his idea from it. The first building that seems to have been influenced by these Flemish works was Wollaton House. Wollaton House was built in 1580, and this book was out in 1577. Either the architect of the house or his client got hold of de Vries' book and took some ideas out of it. They were immensely indebted to Mr. Gotch for the trouble he had taken, and he seconded very cordially the vote of thanks.

PROFESSOR BERESFORD PITE [F.] said it seemed to him vastly interesting to hear the author of such wonderful books on Elizabethan architecture brought to book by Mr. Spiers with acute references to Mr. Gotch's forefathers in Holland, who published books from which this Elizabethan architecture must have originated, because Mr. Dawber had quite gaily suggested that from what Mr. Gotch called the fancy, but what others might call the ignorance, of Elizabethan architects, we at the present day may derive very healthful instruction which Mr. Dawber hoped all architects would seek seriously to employ. Was it not vastly interesting when they reflected how quite obviously the Elizabethan architecture was not grown in England, but must have come from abroad? The architect came into existence as a learned man in his profession at the time of the Renaissance. He

began to learn abroad, and this professional gentleman late in the reign of Queen Elizabeth derived his architecture, as architects of the present day did, from the illustrated plates in journals, and these picture books from Holland which reproduced to the very number the pilasters on Holland House would connote to Mr. Dawber the sins which they all committed at his expense in drawing upon his charming effects in the Cotswold mountains, which architects enjoyed and imitated so freely. He did not think there was any direct following of the Italian masters till they came—a good deal later—to Inigo Jones, and it was quite interesting if they reflected that in the fifteenth century, the *Cinque cento*, say from 1420 to 1480, great palaces of Florence by Brunelleschi and Michelozzo were built, two hundred years before. At the end of that century we get Fontainebleau, and the exceedingly fine type of very pure and delightful French *hôtels*, town houses—with which we have nothing to compare in England—and the French *château*, was in fact well advanced with its beautiful composition and refined detail long before the fancy of Elizabethan architects had led them into that sort of recklessness which was so charming but was after all so very bad. The Italian domestic architecture was two hundred years ahead, and the French architecture was one hundred years ahead of the curious importation called Elizabethan at the beginning of the seventeenth century in England. It was very interesting, curious, and very strange how we had been stranded, how real was the absence of architectural training and idea in England, in that we were two hundred years at the very least behind those Italians whom John Thorpe (or possibly John of Padua—it was Mr. Blomfield, he believed, who doubted whether after all he was not a ghost) copied in England. Mr. Gotch had been exceedingly interesting in that passage of his paper which referred to the development of the plan, and the tardiness with which the development of the plan progressed. The English house plan, he ventured to suggest, was one of the simplest things possible if one bore in mind that it existed in colleges and almshouses in the same unvarying type. The question Mr. Dawber raised as to the forecourt was solved when one bore in mind the college with its hall and buttery on the left, its drawing-room and combination-room to the right, with the staircase in the invariable position off the dais which was found in Hampton Court and Penshurst and in some of the plans Mr. Gotch had shown, which held its way through England for five hundred years before dying out; and it did not really die out in the drying up of Smithson's fancy; it died out when Inigo Jones introduced the Palladian type into England just a little later. The English people were so peculiarly insular that the permanence of this type of plan was itself a little illustration of the narrowness of our outlook. There was one other

point he should like to suggest of very great interest in connection with Elizabethan architecture—viz., that from the time of the Conquest until the Renaissance England had possessed an architectural vigour exercised in masonry which had produced Westminster Abbey and a whole series of beautiful cathedrals, culminating in Henry VII.'s Chapel and King's Chapel, Cambridge. The development of masonry in England was astonishing for the rapidity and steadiness of its development up to the time of the Renaissance. Then it died, and died absolutely. The masonry of the Elizabethan houses which followed was just as poor as possible; there was a complete hiatus. One could not understand it. It seemed as if the skill which had progressed from the simplest forms of building and the crudest materials, and had produced ultimately such wonderful vaults as the vaults in Henry VII.'s Chapel, had become suddenly extinct. Why and how one could not tell, but it had really gone out of existence after that period. When the English spirit was developing in stonework, joinery was almost a dead imitative art, with one or two curious exceptions; and if one watched the development of English woodwork it would be found that it followed on the heels of stonework—the cuspings and traceries of Mediaeval vaultings and screens were copied from the predominant stonework up to the time when masonry died: but as soon as stonework died woodwork went ahead, and in the English gentleman's house, in great Elizabethan panellings, in furniture, in mantelpieces, in staircases, in ceilings, in trunks and chests it would be found that the art which had been inspiring the stoneworker had seized the other material; and the vigour with which stonework had developed was now associated with the development of woodwork and joinery. It was extremely interesting to see how the native talent was diverted from one material to the other, because, after all, the main living interest in Elizabethan work was in the woodwork. The external architecture was worth nothing to us; it was very charming because it was fanciful, but it was just as interesting as the balustrade shown on one of the drawings; the architecture was of the same type—it did not deserve anything better. Mr. Gotch was very generous and kind when he called it fancy, but it was ignorant drawing and designing, and nothing else. The woodwork, however, lived and did not die. Beginning with the narrow panel, the extension of the panel proceeded until it covered the whole of one side of the room; and the moulding which began as a little narrow thing when they did not know how to mitre, developed till it held the rails and stiles; and the mitreing, of which they had been absolutely ignorant until they discovered the shouldered mitreing and mitres, soon covered the whole surface of the door, and instead of there being a dozen or so mitres in a panelled door, there were mitres by the gross jostling one upon another. These Elizabethan joiners having dis-

covered a good thing really revelled in it in the same way as the masons revelled in the tracery in the vaulting in Henry VII.'s Chapel. He had much pleasure in joining in the vote of thanks to Mr. Gotch.

MR. EDWIN T. HALL [F.], referring to the plan shown of Slingsby Hall, said it struck him that the general lay out of the place, and particularly of the enclosure, was distinctly Indian in type and very like many enclosures of the great Indian temples and tombs. This might be a subject of interest for Mr. Gotch to investigate. A Captain Slingsby, he believed, was one of the English travellers who visited the Great Mogul's Court towards the end of the sixteenth century, and it was not impossible that he might have been the builder of Slingsby Hall after having seen those great buildings in India.

MR. GOTCH, in reply, said he would not detain the meeting at that late hour. The points that had been raised would suffice to furnish a discussion that would last *de die in diem* for at least a fortnight! He did not quite agree with Professor Pite, who, he thought, spoke more from the professorial than from the purely human point of view when criticizing Elizabethan work. If looked at sympathetically there was as much interest in it as there was in the minor scenes in Shakespeare's plays—a delightful fancy, a delightful hint of learning, which, he quite agreed, was not always perfect, but was present in all sorts of varieties. Sometimes one found the most curious failure to grasp the idea, and at other times extraordinary skill. He ventured to say that there was no cornice in Italy—there was certainly none in England—that was more beautiful or more purely profiled than the cornices at Lyveden, in Northamptonshire. As regards the masons, it was astonishing certainly how the skill disappeared that had done Henry VII.'s Chapel. Still there was a certain measure of skill left, because there was a considerable amount of Elizabethan vaulting, such as that done at Drayton House in 1584. At Bolsover, too, the whole of the ground floor and a good deal of the first floor showed great skill in vaulting, and, in a way, more skill and more thought-out design than, he was almost going to say, was found in Mediæval vaulting. Some one present said it was German, but he did not believe it was. People were very fond of saying that all the foreign-looking work was done by foreign artists, but the difficulty was to track any foreign artist and find his work. If one took any work of that time in England and tried to find out who did it, one would hardly ever find evidence that attached a foreign name to it. People would declare in a light-hearted way that such-and-such work was Torrigiano's when there was not a scrap of evidence that it was so. John of Padua was credited with Longleat, but there was not one iota of evidence that John of Padua ever saw Longleat, or ever knew of it; yet that tradition was quite established. But when one came to look into it, and to search for real evidence

instead of hearsay, it was with the utmost difficulty that any piece of work in England could be tracked to a foreigner. On the other hand, one would find work with foreign detail such as the work in Magdalen College Hall, and when the authorities were consulted it would be found to be by a person with an English name. This was very odd. This investigation of course was entirely in its infancy. With regard to what Mr. Spiers said about Holland House, he had not had time to work out that building thoroughly—it would probably take years: but he hoped that the Survey of Greater London now going on would perhaps tackle it. The study of this period really involved writing a monograph on every one of its buildings. With regard to what Mr. Dawber said about a single span roof, that was a point he had not considered. It sounded reasonable. But at the same time some houses, Holdenby for instance, were double roofed. There were many single roofs, but Holdenby, which was built in 1575, was double roofed. The particular process by which these houses were erected he imagined to be as follows: It became necessary to have a man to draw the plan, for it was no longer possible to be content with the sort of haphazard arrangement that had subsisted in mediæval times. This was owing to the growth of symmetry. The ordinary mason could not pack the necessary accommodation into his symmetrical outline. Men had to be trained for the purpose; and also the fashion for foreign detail grew so much that men went abroad to study, and when they came back they applied their knowledge so far as they could. The evidence is that Thorpe drew the plans. He drew a few elevations, but if we are right to deduce anything from what we see, he drew chiefly plans, and these plans were sent down to the building and worked out by a clerk of the works who saw what was wanted, and employed masons, and the mason brought his own detail, which varied according to where he had been brought up. But it was the surveyors, he believed, who principally produced the plans, and occasionally supplied an elevation. These plans and elevations were worked out by the people on the spot, who altered them according to their fancy, or according to circumstances, because one hardly ever found that the plan of any of those houses agreed with the plan as it existed now. Most of them could not in the nature of things be surveys. That example at Wimbledon of course was; but nearly all Thorpe's plans could not be surveys, because the plan, although it did not agree with the building as it stood, was so much like it that the only interpretation was that it was a little modified during its erection. He would conclude his remarks by an expression of thanks for the very kind way in which the meeting had listened to his paper.

On the motion of the President a vote of thanks was passed by acclamation to Colonel Coke for his kindness in again lending the drawings for exhibition at the Institute.



9 CONDUIT STREET, LONDON, W. 1. 21st Nov. 1908

CHRONICLE.

The Housing and Towns Planning Bill.

The subjoined letters on the subject of the Housing and Towns Planning Bill, addressed from the Institute to the President of the Local Government Board, and duly acknowledged, are recorded here for the information of members. The deputation referred to in the opening paragraph of the January letter had waited upon Mr. John Burns some weeks previously, and urged that provision should be made in the Bill for the formation of advisory committees composed of experts to be consulted in all matters connected with the preparation of town plans and plans for town extension.

For 1908.

The Right Hon. John Burns.

President of the Local Government Board.

SIR.—You received our deputation on the 3rd December last with such frankness and courtesy that we venture once more to lay our views before you on certain points which escaped discussion at our interview. We fully admit the weighty reasons you gave for proceeding cautiously in this matter, the immense value of town sites, the necessity of considering the hinterland of great thoroughfares, together with political considerations, which lie outside our province; but we feel that in the preparation of any scheme for the laying out of towns there is a very intimate relation between the artistic aspect of the question and the dignity of civic and national life which is in danger of being overlooked. It seems to us that the problem of enlisting in the service of the State the most competent advice in dealing with such matters is worthy of the serious consideration of statesmen, the more so as the attempt has not been made in this country on any organised system. In this matter of the relation of public authority to trained architectural opinion this country is, and has always been, far behind others.

We venture to return to this matter, because, in the Bill of which you very kindly gave us a general outline, although there appears to be ample provision of powers of control and regulation, we did

not gather that there is provision for preparing town plans as understood in other European countries, or for enlisting the assistance of architectural opinion. We venture to hope that the Bill will provide for these important matters on a comprehensive scale, for we submit that no satisfactory scheme of town planning can be drawn up without architectural advice, inasmuch as no other profession has the requisite training for dealing with such problems. Architecture is concerned not only with individual buildings, but also and very particularly with the proper planning of buildings in relation to each other, and with considerations of spacing, of vista, perspective and composition, problems which demand special study and powers of design of a high order. At the interview which you were kind enough to grant us, this larger aspect of municipal planning was hardly brought into sufficient prominence.

The point which we would put before you is that the satisfactory laying out of towns and planning of municipal improvements is in the main a question of design: that is to say, given the data supplied by the engineer, the surveyor, the sanitary and local authorities, there still remains the question who is to mould these elements into the best possible form—for the work of the engineer and surveyor is contributory rather than final. As the necessary complement to their work, another order of mind is required, and that in the initial stages of the scheme. We would urge that the practical and the artistic sides of town planning are inseparably connected, and that no scheme can be wholly satisfactory which does not satisfy both aspects of the matter. It is in regard to the artistic aspect that we make our suggestions.

We submit that the translation of the various practical conditions into the best possible scheme is a problem of architectural design, and as such should have the benefit of the best architectural assistance it is possible to obtain.

We would point out that in France special importance has always been attached to this power of laying out public spaces, which is an essential function of architecture. It does not fall within the scope of professions into whose training æsthetic considerations do not enter. It is generally admitted that for the last two hundred years or more the French have shown other countries the way in the handling of large problems of town planning, and the reason for this superiority lies not so much in individual ability as in a great tradition of design built up by the successive General Councils of Civil Buildings, which are composed for the main part of the ablest architects of their time in France. We suggest that, having regard to the constant development, rebuilding, and rearrangement of towns entailed by the changing conditions of modern civilisation, the time has come for a more systematic and comprehensive treatment of these problems, and that an attempt should be

made to bring the best architectural opinion into play in dealing with these matters.

We feel that it would be greatly to the interest of the larger towns of this country that their development and extension should proceed on carefully considered general plans drawn up to meet local conditions and on lines sufficiently broad to admit of such minor modifications as may be necessary in succeeding generations. We feel that without some such provision the difficulties which already meet us, and are already beyond control, will recur in the future in an aggravated form. It is more particularly in connexion with this aspect of town planning that we suggest to you the desirability of devising some machinery for the enlistment of competent advice.

Should you consider this desirable, the Royal Institute of British Architects will feel honoured by being permitted to submit suggestions for your further consideration.—We have the honour to be, Sir, your most obedient Servants.

THOMAS E. COLLCUTT,

President R.I.B.A.

ASTON WEBB,

Chairman of the Town Planning Committee R.I.B.A.

17th July 1908.

The Right Hon. John Burns, M.P.,

SIR,—I am desired by the Council of the Royal Institute of British Architects to refer you to their letter of January 1908 on the subject of the Housing and Towns Planning Bill, and to request that the Royal Institute of British Architects should have specific permission to make recommendations or representations as "persons affected" at inquiries held by the Local Government Board before the approval of town planning schemes.

It is understood that this was indicated by the speech in which you moved the second reading of the Bill, and by paragraph 2 (c) of Schedule III., but it is considered desirable by the Council that it should be more clearly defined in view of the importance of the artistic side of such schemes being fully considered. The Council would also be glad to know if the Bill will require that, in the case of schemes for the laying out of estates by private owners (which may have received the approval of the local authority), there will be an appeal to the Local Government Board from the decision of the local authority.—I have the honour to be, Sir,

Your obedient Servant.

IAN MACALISTER,

Secretary R.I.B.A.

Sheffield University.

Mr. J. Alfred Gotch, F.S.A. [F.], has been appointed by the Council to represent the Institute on the Senate of Sheffield University, in place of Sir Aston Webb, R.A. [F.], resigned.

The Records Committee R.I.B.A.

For some months past a scheme has been under consideration by a Committee of the Institute, its object being to co-ordinate and systematise the measured work done by candidates as Testimonies of Study for admission to the Final Examination, and by competitors for the Measured Drawings Prize. The proposals were first brought before the Literature Standing Committee, and having been referred to a sub-Committee and favourably reported upon, the sub-Committee, with other members added, was permanently established to thrash out details and give practical effect to the proposals. The Committee, which is to be known as the Records Committee R.I.B.A., consists of the following members of the Institute:—Professor W. R. Lethaby [F.], *Chairman*; Messrs. Alexander Graham, F.S.A. [F.], Halsey Ricardo [F.], R. Phene Spiers, F.S.A. [F.], D. T. Fyfe [F.], Walter Millard [A.], W. Curtis Green [A.], *Hon. Secretary*; S. K. Greenslade [A.], A. J. Stratton [A.]; and two non-members, Messrs. Philip Norman, F.S.A., and R. Weir Schultz.

Under existing conditions much excellent measured work is done which, through want of system and proper direction, is often of little permanent value. Measured drawings, for instance, are repeatedly made of the same buildings, or of buildings of which authentic record already exists, or, again, of buildings of insufficient architectural or historic interest. It is desirable, too, that a student who has done a certain amount of measured work of a building in his Testimonies of Study for the Final Examination should be encouraged to proceed with further work on the same building if he intends later to enter for the Measured Drawings Medal. In this way continuity of study as well as of record would be preserved.

With the view of directly aiding the student in his choice of building, and indirectly of gradually forming a measured record of the buildings of the United Kingdom, the Committee have decided to prepare an extended list of old buildings suitable for study, and especially of those of which no adequate record exists. In order to make this list as complete as possible the Committee are inviting the Allied Societies and other bodies to assist in its compilation, and they are seeking also the co-operation of individual members of the Institute and others who have special knowledge of buildings of particular districts. It is proposed to include in the list ecclesiastical, civic, or domestic buildings of any period, and information will be given, where necessary, as to their position and character as well as to their accessibility for the purposes of study.

The manner in which the record of such work should be preserved may possibly take the form of publication of specially chosen drawings at stated intervals.

A British "Villa Medici."

In a letter in last week's *Builder* Mr. John W. Simpson [F.] writes in vigorous support of the proposal in the President's Address [pp. 8 and 9], that means should be found to establish a home abroad—at Rome or elsewhere—"where young painters, sculptors, and architects could fraternise, help one another, and receive some guiding direction in the profitable study of great works." Something of the same idea had been put forward by Mr. Simpson in some remarks on Mr. Colcutt's Address to Students last year, when he suggested students being placed under training and discipline during their tenure of travelling studentships, and urged for the purpose the establishment of a *British "Villa Medici."* Mr. Simpson states that he heard not long afterwards that a valuable legacy had been promised for the object he was advocating. In his *Builder* letter Mr. Simpson suggests the following points for consideration:—

"First, I would urge that the beginning be a very modest one. To attempt at the outset the establishment of a full-blown Villa Medici of architects, painters, sculptors, and musicians would mean long delay, great cost, and the co-ordination of many interests; possibly involving the loss of the scheme. It is sometimes forgotten that the actual money value of the Prix de Rome is only some 120*l.* per annum (this includes travelling expenses), to which is added a small supplementary grant for travelling when visiting Greece or Asia Minor. I am not without hope that the Royal Institute, with its Allied Societies and the Association, may soon be able to make a beginning (possibly by some small modifications of the conditions of their studentships), with a small house in Rome, a Director, and a few students in architecture only. Later on, the Royal Academy and other educational authorities may wish to develop the School and give their help, but the important point is that a start should be made. Government support we cannot, I fear, expect, though Sir Aston Webb has indicated a practical way in which such support might be given, in connexion with the new Royal Commission on Ancient Monuments.

"Secondly, we should, I think, put our pride in our pocket and take our Directors from the Ecole des Beaux-Arts for the first few years—until, in fact, we have trained our own professors. It is of the utmost importance that the tradition of the School should be founded on Classic methods, and we need not waste time in developing for ourselves what has been already achieved by a school boasting a line of architect students, which begins with Dorisot, in 1720, and is broken only by the suppression of the Academies during the Revolutionary years 1794–5–6. No student of music or singing limits his choice of a professor to his fellow-countrymen, but places himself under the teacher, whether French, Italian, German, or whatnot,

whose methods and experience seem to promise the best results.

"Thirdly, the execution of a 'Restoration' during the term of studentship should be insisted on. It may not be, probably is not, in the case of our students, desirable that they should carry their 'restorations' to the point attained by the French, who are assured of Government employment at the end of their term at Rome. The time required is more than our students, who have to form a private practice, could afford. But the reasoned study and comparative analysis required to restore an ancient monument without artistic and anachronistic blunders give such a thorough acquaintance with, and appreciation of, the refinements of Classic work as can, I am assured, be obtained in no other way. The sense of picturesque form and colour is developed among our architects to a high degree, thanks to the influence of that great master, Norman Shaw. If upon that Romantic stock be grafted the accurately delicate beauty of the Classic, I believe our national architecture may well become the finest of modern times."

The Additions to the Law Courts.

The work of building the four new Courts of Justice in the Strand is to be undertaken without further delay, the gardens alongside the existing Courts being already in the hands of the contractors for the preparation of the foundations. The proposal to utilise for building purposes the open space that lies between the Law Courts and Clement's Inn has elicited protest and been the subject of questions in Parliament. The First Commissioner of Works, replying in the House, stated that the land had been always intended for the provision of additional Courts, and that it was only laid out as a public garden—largely through the generosity of the late Mr. W. H. Smith—for the time being, until the need for the extension of the existing buildings became urgent. The four new Courts have been designed by Sir Henry Tanner, who has followed very closely the lines of Mr. George Edmund Street's work in the main building. The whole of the gardens will not be at once absorbed by the additional Courts; the southern portion of the land will remain open, probably for some years. The Courts are to be placed on the northern portion, close to Carey Street. A bridge, carried by an arcade of three bays, will connect them with the Court level of the main building, and these bays will span the lower landing close by the steps leading to Carey Street. The building will cover part of the present footpath from Clement's Inn Passage; but a new footpath will be carried from this point round the west and south front of the premises. The exterior will be of Portland stone, similar to that used for the existing building. Besides the entrance from the corridor which forms a connection with the latter

there will be a public entrance at the east front (opposite the Law Courts), two Judges' entrances at the north-east and the south-east corners, and an entrance to the public galleries at the west front. The Courts will be placed two on either side of a bar-corridor on the Court level, and the Judges' rooms will adjoin them. The rooms for clerks and other officials will occupy the basement level, where also there will be a public corridor communicating with the entrances and the staircases.

The New Sculptor Knight.

In the distribution of His Majesty's Birthday Honours the distinction of Knighthood has been conferred upon the sculptor, Mr. George Frampton, R.A. The new Knight, who is one of the best-known and best esteemed of the Institute class of Hon. Associates, has the sincerest good wishes and congratulations of members upon this gratifying recognition of his merit. Sir George Frampton's interest in the Institute's concerns has been manifested by many years' service on the Art Standing Committee and by constant presence at the General Meetings. The Institute is also indebted to him for the design he kindly presented of the new Medal for Essays and Measured Drawings, and for superintending the execution of the model—illustrated in the JOURNAL for 9th November last year.

The Concrete Institute.

The first general meeting of the Concrete Institute was held at the Royal United Service Institution, Whitehall, last Thursday, when a Paper was read by Mr. Charles F. Marsh on "The Composition and Uses of Plain and Reinforced Concrete." On 17th December a Paper will be read by Mr. Wm. Dunn [F.] on "The Examination of Designs for Reinforced Concrete Work." The present subscription of one guinea per annum is to be raised to two guineas per annum as soon as the membership reaches 500. The membership now exceeds 300. Standing Committees have been appointed for:—(1) Science; (2) Parliamentary Matters; (3) Testing; (4) Mass Concrete; (5) Reinforced Concrete Practice. A large number of scientific and technical questions referred to the Institute will be dealt with by the Council and the Sub-Committees in rotation. The Honorary Secretary is Mr. A. E. Collins, M.Inst.C.E.; temporary offices, 1 Waterloo Place, S.W.

Technical Education.

The Education Committee of the London County Council have selected the following members of the Institute to act as examiners for specified subjects for the educational year 1908-9:—Building Construction, Mr. A. Randail Wells [A.]; Quantity Surveying, Mr. Arthur Wells [F.].

Reproductions of Measured Drawings.

The Directors of the Architectural Union Company have for many years offered a prize, through the Architectural Association, for measured drawings of existing buildings of interest, and have obtained reproductions of several of the more important drawings of each premiated set. These reproductions have from time to time been presented by the Directors to the Institute Library, and within the last few days the following sets, representing fourteen drawings in all, have been received:—

Eltham Palace, Kent—1. Elevation, Plan, and Sections; 2. Banqueting Hall—Sections; 3. Details of Stonework, &c. By Mr. Cecil R. Pinsent. 1904 Prize.

Banqueting House, Whitehall.—1. South Elevation; 2. Perspective looking West, &c.; 3. Elevation, part of Front, &c.; 4. Full-size Details. By Mr. F. A. Lodge. 1907 Prize.

Tower Hall, Abingdon, Berks.—1. East, South, and North Elevations; 2. Plan of Ground, 1st and 2nd Floors, and Roof; 3. Details of Lantern, &c.; 4. Longitudinal Section, &c.; 5. Details of one of the Bays; 6. Details of Staircase Tower; 7. Full-size Sections of Mouldings. By Mr. H. H. Whittington. 1905 Prize.

Obituary.

At the meeting of the 16th November, Mr. Alexander Graham, Hon. Secretary, had formally to announce the names of members who have died in the interval between the closing meeting of last Session and the opening of the present. Addressing the members present, Mr. Graham said:—Some months have elapsed since I recorded the names of members who unfortunately have fallen from our ranks. In the list are some old and esteemed friends both professionally and socially, while others are men who have fought the battle of professional life with more or less success in the best interests of our vocation. The names are the following:—Francis Haslam Oldham, elected Fellow in 1877; Alfred Darbyshire, elected Fellow in 1870 and Vice-President from 1902 to 1905; Albert Edward Gough, Associate, elected in 1873; Leslie Wilham Green, elected Associate in 1899 and Fellow in 1907; David Gestling, elected Associate in 1863 and Fellow in 1873; Francis Adams Sprules, elected Associate in 1906; Isaac Steane, elected Associate in 1879; Lewis Henry Isaacs, elected Associate in 1858 and Fellow in 1874; and the last name which I have to announce is that of our old and esteemed Fellow, Hugh Stannus, who died last August rather suddenly. You will all doubtless have read the interesting biographical notice and personal recollections of Mr. Stannus which have appeared in the JOURNAL, and I am sure every member of the Institute will echo with heartfelt sympathy the sentiments therein expressed. Hugh Stannus was not only a diligent student, but an earnest worker; a man of great research, intimate with every branch of architecture, and a reliable authority on any subject connected

with the allied arts. I may say that our sympathies have gone forth in a letter addressed to Mrs. Stannus, and I am sure that now all members of the Institute will endorse the feelings already expressed for the loss of so dear, so good and esteemed a friend, and testify our high appreciation of his services in the promotion of architecture. I may say with regard to the other members who have passed from our ranks that we have in most cases entered in the JOURNAL some short notice of their career and an appreciation of their work.

The late Lewis Henry Isaacs [17]

By the death of Mr. Lewis H. Isaacs a name of long standing has been removed from the list of Fellows of the Institute.

Mr. Isaacs was born on 3rd January 1830 in Lancaster, where his father was a solicitor. He was articled to the late Mr. Edmund Woodthorpe [17], and, having completed his articles, he commenced to practise in London as an architect and surveyor. He became an Associate of the Institute in 1858 and a Fellow in 1871. He was elected an Associate of the Institution of Civil Engineers in 1858.

On the passing of the Metropolitan Local Management Act 1855 he was appointed surveyor to the Board of Works for the Holborn district, which office he retained until the dissolution of the Board under the Local Government (London) Act 1900, when he retired, after forty-five years' service.

During the period of his surveyorship of Holborn the system of public sewers in that district was almost entirely reconstructed under his advice and superintendence. He received the medal of the Society of Arts for his very able treatise on Carriage-ways and Pavings for Large Cities. In 1868 Mr. Isaacs was appointed surveyor to the Honourable Society of Gray's Inn, from which office he retired in 1899.

Among his architectural works were: Messrs. Farniloe's Laid and Glass Works, Clerkenwell; the London Joint Stock Bank, St. John Street, Clerkenwell; Gully's Patent Manufactory, Hemmelsmith Road; the Holborn Viaduct Hotel and Station; the "King Lud" and adjoining premises, Ludgate Circus; the Public Baths and Washhouses, Queen's Road, Bayswater; alterations to No. 6 Devonshire Place for Colonel Sir J. Roper Parkinson; alterations to Koth House, Bayswater, for Sir J. Clifton Robinson.

Among the works carried out by Mr. Isaacs in conjunction with the undersigned were: the Holborn Town Hall, Gray's Inn Road; the London Joint Stock Bank, Paddington Branch; Nos. 7 and 8 Bell Yard, Fleet Street; the Hotel Victoria, Northumberland Avenue; Warehouses in Rochester Row for Messrs. T. & W. Farniloe; the East Library, and additions to the Gray's Inn Hall and Offices, and the New Class Rooms in Field Court for the

Honourable Society of Gray's Inn; Nos. 5, 6, 7, 8, and 9 Northumberland Avenue for the Constitutional Club; Nos. 306, 307, 308, 309, and 310 Holborn, and Nos. 74 and 75 Chancery Lane; Messrs. Lamplugh's Premises, No. 113 Holborn; Messrs. Watson's Premises, No. 313 Holborn; Monument Station and Chambers for the Metropolitan District Railway; St. Andrew's Dispensary, Clerkwell Road; Messrs. Reynolds's Premises, Charterhouse Street; additions to East Cowes Castle for Viscount Gort; completion of Mansion in Cadogan Square for F. C. Constable Esq.; additions and alterations to The Woodlands, Bucklebury, Berks; Bristow, Esq.; Messrs. Moss's premises, Crompton Road; the Coburg Hotel, Carl's Place, W.; the Carlton Hotel, Pall Mall, as remodelled after the death of Mr. C. J. Phipps; the Empire Hotel, Lowestoft; the Bedford Row and Brownlow Street extensions of the First Avenue Hotel, Holborn; alterations and additions to the United Service Clubhouse, Pall Mall.

In addition to his large practice as an architect and surveyor and as an expert valuer for compensation and rating purposes, Mr. Isaacs was engaged in many other pursuits. He was elected a director of the Metropolitan District Railway in 1870, and was deputy chairman when he retired in 1905; in this position and as chairman of the Whitechapel and Bow Railway, the Brompton and Piccadilly Circus Railway, and the Ealing and South Hareway Railway he acquired wide experience in railway matters. He sat in Parliament—1885 to 1892—as member for the Walworth Division of Newington, and did good work in advising and assisting in the improvement of the drainage and ventilation of the Houses of Parliament. At the time of the creation of the Volunteer Force in 1859 Mr. Isaacs received a captain's commission, in recognition of his services in raising companies of the Old 40th and 22nd Middlesex. He attained to the rank of major, and retired in 1872. He was one of the resuscitators of the Paviers' Company, and served twice as Master.

Mr. Isaacs was Mayor of the Royal borough of Kensington for 1902-3 and 1903-4, and at the close of his second year was presented with a service of plate, as a mark of esteem, by the inhabitants.

Mr. Isaacs died suddenly of heart failure on 17th October last; he was buried at Kensal Green on Thursday, 22nd October. The funeral service was held at St. Mary Abbot's Church, and was attended by the Mayor, Aldermen, and Councillors, Earl Percy, M.P. for South Kensington, Mr. R. H. Robinson, Chairman L.C.C., and many personal and professional friends. A memorial service was held at Holy Trinity Church, Gray's Inn Road, and amongst those attending were the Mayor of Holborn and the Steward of the Honourable Society of Gray's Inn.

Mr. Isaacs was distinguished by a great business ability, coupled with an active kindness

and benevolence of disposition, and he will be remembered by many with regard and affection. During a long and uninterrupted friendship, extending for upwards of thirty years, the present writer was a witness of very many kind and generous acts, and it is with a sincere feeling of esteem and regret that these lines are penned.

HENRY L. FLORENCE [F.].

The late H. H. McConnal [F.]

On November 11 the death occurred at Walsall of Mr. Henry Hill McConnal at the comparatively early age of fifty-two years. He became an Associate of the Institute in 1882 and Fellow in 1905. His professional career commenced about 1872, when he was articled to, and entered the office of, a Birmingham architect, Mr. John Cotton [F.]. He subsequently assisted various architects in the Midlands, and commenced practice in Walsall, ultimately joining, about sixteen years ago, Mr. F. E. F. Bailey [F.], with whom he has since been largely associated in school building and other civic, commercial, and domestic architectural work of varied character. Mr. McConnal was much interested in Freemasonry, and was Worshipful Master of one of the Walsall lodges. He was also President of the Burns Club in that town and a co-opted member of the Library and Art Gallery Committee. He was a skilful draughtsman and a man of much taste and mental culture. His genial but unassuming manners endeared him to many friends, and his high character won the regard of all who knew him, evoking much public regret at his decease.

A. T. BUTLER [F.]

REVIEWS.

OLD ENGLISH GARDENS.

English Houses and Gardens of the Seventeenth and Eighteenth Centuries. With Descriptive Notes by Mervyn Macartney, F.S.A. 40s. Lond. 1908. Price 15s. [B. P. Batstford.]

Mr. Batstford gives us in this book a very interesting collection of thirty-three reproductions of plates by Kip, Burghers, Leggan, and others, of English seventeenth and eighteenth century houses and gardens, to which are added excellent and carefully compiled notes and an introduction by Mr. Mervyn Macartney. Some of the smaller plates, or, rather, those which are drawn to a larger scale—such, for instance, as Ambrosden (No. 28), Boarstall (No. 4), and Sarsden (No. 20), all engraved by Burghers—came out very well in the reproductions. Quite as good, if not better, are six of Leggan's bird's-eye views of colleges at Oxford and Cambridge. Many of the plates are so much reduced as to lose inevitably much of the quality and charm of the engravings from which

they are taken, but they will be none the less interesting and valuable as a guide and stimulus to the plant collector, architect, and gardener.

The general lines which were taken by the development of the formal garden are clearly indicated in the plates. The earlier gardens of the Tudor and Elizabethan periods look like the work of real gardeners—that is, of people whose chief love was for the trees and plants which were to be arranged in the best way for their growth, use, and enjoyment. The later gardens of the Stuart period began to suggest the office and tee-square: they suggest the same divorce between the garden designer and the gardener as we have learnt to deplore in other arts between the designer and the craftsman. Mr. Macartney brings out this point very clearly in the introduction, especially in the case of parterres and compartments: on the Continent, he tells us, the exaggeration of artificiality was sometimes carried so far as to dispense with flowers altogether: patterns were carried out with various coloured sands, brick-dust, and even iron-filings. It did not often go so far in England, but it went far enough to produce a reaction in favour of so-called landscape gardening, from which we are only lately beginning to recover.

The plates also show the gradual transition from the generally Gothic character of the Tudor and Elizabethan house to the definite Classic style which dominated the town houses and many of the larger country houses of the seventeenth century. Mr. Macartney compares, very justly we think, the sensible and comfortable sobriety of this type of country house with the fanciful straining after artificial picturesqueness which marks so many modern designs. But the sobriety and dignity of seventeenth-century building should not lead us to forget that its pedantic symmetry was also a serious obstacle to the development of architecture on the lines of constructional sincerity.

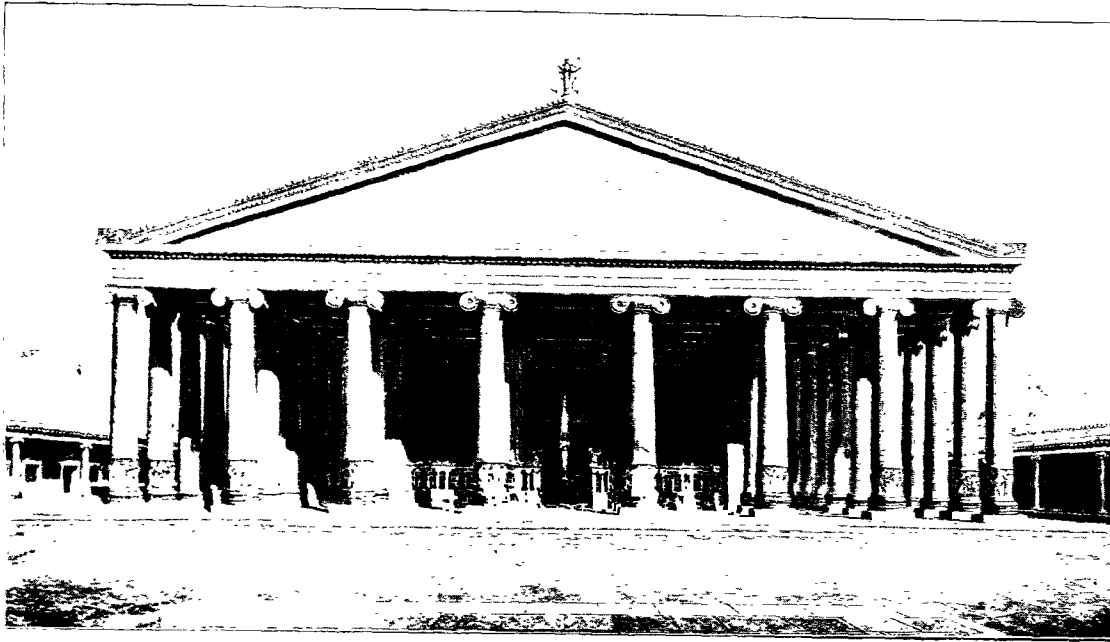
Mr. Goodison's frontispiece is a cleverly drawn composition of scrolls, amorini, and other objects in the manner of the seventeenth century, with some nice and dainty lettering, which would have given us real pleasure if it had been the work of a time which could have sincerely produced it.

ARTHUR S. DIXON [F.]

ST. BARTHOLOMEW-THE-GREAT.

The Parish Church of St. Bartholomew-the-Great, Southwark. Its Gothic Work. With 42 Illustrations. So Lond. 1908. Price 1s. 6d. [George Bell & Sons.]

After perusing this little book I could not help feeling what a good thing it would be if the Institute could suspend for a short time its arduous labours on the quality of brick, cement, and reinforced concrete, and lay down a few simple rules as to the construction of monographs of important churches. First we might ask, being unlearned folk, to be told *exactly* as regards St. Bartholomew's,



The Temple of Artemis (Diana) at Ephesus. Restoration of the Croesus (Sixth Century B.C.) Structure by Arthur E. Henderson, R.B.A., Architect to the British excavations at Ephesus.

THE CROESUS (VITH CENTURY B.C.) TEMPLE OF ARTEMIS (DIANA) AT EPHESUS.*

By ARTHUR E. HENDERSON, R.B.A. [*Queen Jones Student 1897*].

IT is my purpose in this Paper to describe the actual remains found and the fragments remaining of the Croesus sixth century B.C. Temple of Artemis at Ephesus, which were uncovered and surveyed during the British excavations at Ephesus, directed by Mr. D. G. Hogarth, in the autumn of 1904 and the spring of 1905, and to place before the Meeting a suggested restoration.

Before proceeding to describe this particular temple it would be well to take a general survey of the Artemisia as revealed by these excavations [*see Plate I.*], namely, the three primitive structures designated *A*, *B*, and *C*, the Croesus (or Archaic) *D*, and the Hellenistic (or Great Temple of Diana) *E*. The drawing shows the complete survey I made and drew on the spot. The portions showing the primitive structures are reduced from a larger scale drawing.

Before I commenced the survey the late Dr. Murray, and after his death Dr. Cecil Smith, desired me to measure and examine carefully every marble fragment of the Croesus temple left in position, and this I believe has been carefully done, besides making full-size details of the architecture found. The Croesus pavement is about 6 metres (19 feet 8 inches) below the

* This Paper was read by the author at a General Meeting of the Institute on 19th November 1906, but publication had to be withheld pending the issue of the work then preparing for the British Museum dealing with the whole results of the excavations conducted by Mr. D. G. Hogarth on the site of the Ephesian Artemision. The volume is now published, and by the courtesy of the Trustees of the Museum reproduction to a reduced scale of some of the plates has been permitted for the present

purpose. With the exception of the headpiece, the whole of Mr. Henderson's photographic illustrations on following pages appear in the British Museum volume, and the Institute is indebted to the Trustees for kindly lending the blocks. The discussion which followed the reading of the Paper, including some interesting remarks from Mr. Hogarth and Dr. Cecil Smith, will be found reported in the *Journal* for 24th November 1906. *Ed.*

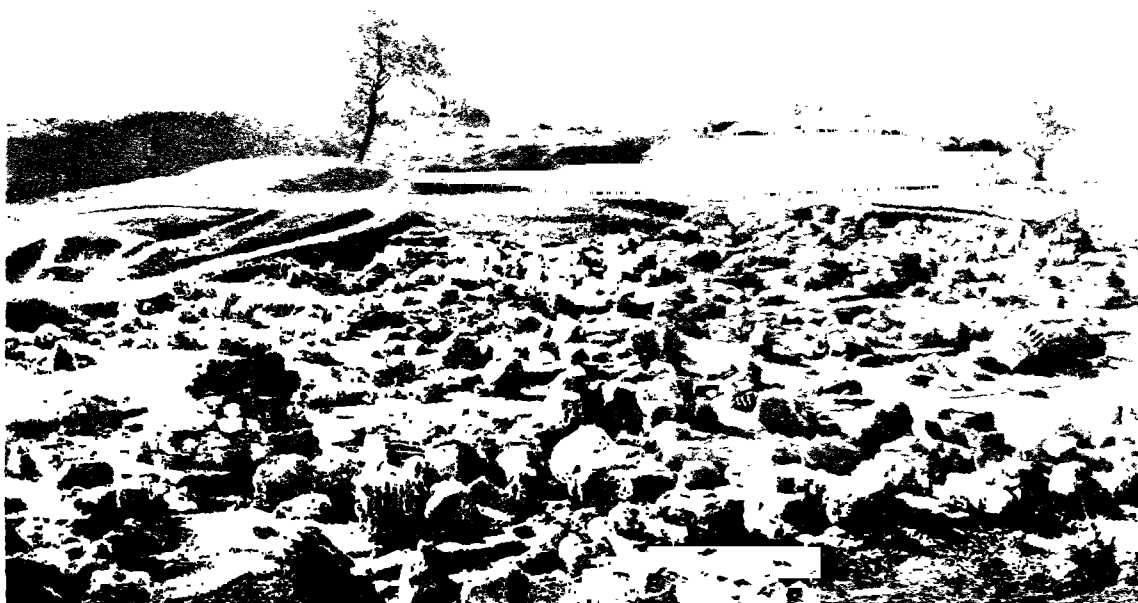


FIG. 1—The Excavations from the North-east, before the primitive structures were uncovered.

general level of the fields. It is well shown in fig. 1, taken before the primitive structures were uncovered, and looking in a south-westerly direction—the large pile of stones is a north-east column base, and the hut marks the situation of the south-west anta.

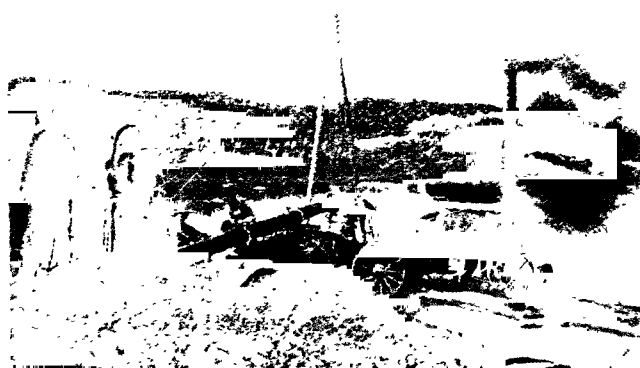


FIG. 2—Pump at work on raising the flooded site, April 1905.

The excavations included two campaigns, viz. in the autumn of 1904 and the spring of 1905. Fig. 2 shows the hopeless state the excavations were in before the commencement of the spring campaign, but by the aid of a powerful 12-inch centrifugal steam pump, belonging to the Aidin Railway Company, and by the supplementary use of a 3-inch hand pump the water was kept sufficiently under control, but not without a liberal amount of hard baling, which was always resorted to where explorations below the pavement level were taking place.

Reverting to Plate I, it will be seen that the Hellenistic first step and drain beneath the courtyard paving were traced for considerable distances on the north and east. They were found also on the south, but not at the west. Huge masses of Hellenistic piers to support the

steps were also uncovered; these at their inner ends rested on the Croesus pavement [fig. 3], and at their outer united with a continuous foundation extending to the drain mentioned above.

The pockets between these piers were the only portions of the Temple area not covered by a continuous foundation. These were filled with debris from the Croesus temple. Other Hellenistic foundations were two masses for the peristyle columns, an inner and an outer; also foundations lined the south side of the Croesus south cella wall, and large masses stood within the cella, greatly impeding the work of exploration. Nothing was found belonging to the Croesus temple beyond the inner faces of the Hellenistic foundation piers.

The remains which are still in position consist of almost the whole of the foundations, and patches of marble pavement. The steps and the foundations had been entirely cut away by the Hellenistic builders, excepting a small portion of foundation to the west of the perron, and the plinths of three columns, one of which has the lowest base still in position. Parts of the west and south walls with the south-west anta still remain, and also the eastern marble quoins to the central basis. Besides these, in the foundations of the cella were discovered what appeared to be a foundation for an inner colonnade.

Large continuous masses of concrete (which Wood considered to be the foundations of a Byzantine church) composed of fragments of the Croesus, the Hellenistic temples, and Roman bricks, just within the cella wall on all sides, extending both below and above the level of the Croesus pavement, added greatly to the difficulty of the exploration of the cella, more especially so as explosives could not be used. One such mass, however, was useful, because moulded upon its surface was the inner face of the south-east angle of the cella wall, thus definitely giving the extent of the cella. This shows that the foundations of the Croesus temple were laid bare as early as late Roman or Byzantine times.



FIG. 3.—Piers to support Hellenistic steps on the north side.

THE PRIMITIVE STRUCTURES.

On removing portions of this concrete, and of the Hellenistic and Croesus foundations, remains of three primitive structures were disclosed.

The earliest structure, Temple *A*, was represented by a small central basis built of squared green schist [fig. 4]; the blocks were bedded upon one another and used as facing to a solid yellow limestone interior. It was among these small stones that the majority of the electrum treasure was found, and just outside the northern third of the western face the greater part of the ivory objects were discovered, now exhibited in the British Museum and the Imperial Ottoman Museum, Constantinople. The lowest courses of the foundations extended to about 1 metre 80 centimetres (5 feet 11 inches) below the level of the Croesus pavement. Projecting westward from the basis and bonded into its foundations is a small T-shaped platform; joined to it further westward is another platform about the same size as the basis, both of yellow limestone.

The middle period, Temple *B*, entirely of yellow limestone, surrounds Temple *A* and



FIG. 4.—The Central Basis from the west, half excavated. In the central foreground is the east wall of the projecting foundation. On the right and left are seen also the rough foundations of the *B* and *C* thickening, and some of the *S* and *T* walls.

thickens the basis to the east, north and south. This structure had an outer wall on all four sides, but this has been greatly demolished by the laying of the Croesus foundations.

The last of these primitive structures, Temple *C*, again enclosed the basis and extended further westward. This also has an outer wall of much greater extent than that of the middle period. Fig. 5 shows the inner north-west angle of this enclosing wall. The wall was ashlar-faced, only the first course remaining in places—and it was built upon large slabs extending the full width of the wall, and below these rough foundations.

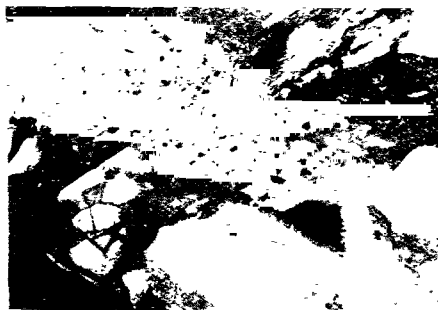


FIG. 5.—Inner north-west angle of *C* enclosure wall.

The northern and southern walls generally measured 1 metre 93 centimetres (6 feet 4 inches) in thickness, and the western was slightly thicker, viz. 2 metres 1 centimetre (6 feet 7 inches). The lateral walls extended westward, further than did the western wall, and give the appearance of a temple *in antis*. This feature could not be traced at the eastern end, although the eastern cross-wall was in position and in perfect preservation at the north-east inner, but broken away at the outer angle. Another small foundation of this structure was discovered just within the foundations of the eastern cella wall of the Croesus temple.

It was extremely difficult to apportion all these different foundations and wallings on

account of their fragmentary condition and the nature of the soil, for when the heavy masses of Croesus foundations were removed water would instantly spring: and although the pumping was sufficient for general purposes, the examination and measuring were most difficult and arduous, having to be done groping in slime, with the water running out from every crevasse, bubbling up from the virgin sand below, and men incessantly baling.

THE CROESUS TEMPLE (D). - GENERAL.

In the course of the sixth century B.C. the Ephesians determined to replace the small Artemision then existing by a new temple of much greater dimensions and splendour, by the architects Demetrius and Paeonius—with a platform considerably over four times the area of the old building. As a comparison, one may imagine the replacing of a Saxon edifice by a Norman cathedral.

The last primitive structure, Temple C, the architects of which were probably Chersiphron and Metagenes, I suggest, was used while the Croesus temple structure was being built around it, and was only destroyed when the work was well in hand to make way for the construction of the cella. To support this theory we found a conduit, 60 by 30 centimetres (2 feet by 1 foot) in width and height, passing through the centre of the western cella wall a little more than a metre (3 feet 3½ inches) below the pavement at the western portal. On the inner side it started clear of the western wall foundations, close to the western wall of the C structure. A little lower than its floor level and to the west it was traced beneath the foundations of the pronaos for a considerable distance westward. The primitive "Basis" was still used as the central point, but the axial direction was slightly readjusted to 11° 35' north of west and south of east, and was doubtless as near the true west-east direction as the architect could attain. Perhaps it was axial with the general direction of approach by sea or fixed by an astronomical observation.

The general dimensions of the remains *in situ* are:—The length from east to west of the marble pavement remaining, 108 metres 83 centimetres (*circa*, 330 feet); the total length from east to west, including the western perron (the platform at the western end), 117 metres 48 centimetres (384 feet); the width from north to south, 55 metres 10 centimetres (180 feet); the area covered, including the perron, approximately was about 6,211 square metres. I shall give the reconstructed dimensions later.

FOUNDATIONS.

Over all this area, wherever the foundations were removed, was found a bedding of white clay from 10 to 20 centimetres (4 to 8 inches) in thickness, and below this virgin river sand; but where older foundations occurred gravel had been laid on the clay bed to fill up holes, and the clay then spread to take the new foundations, all of which were of blue limestone quarried from Mount Prion hard by, with the exception of a few discarded marble paving-blocks.

The wall foundations were constructed before the other foundations; they spread out with footings to a depth of about 1½ metre (5 feet) beneath the pavement floor. The cella wall was considerably larger (the north and south walls projected to embrace a pronaos of large extent and a posticum), and entirely enclosed the outer wall of Temple C. The south cella wall measures 1 metre 92 centimetres (6 feet 4 inches), and its lowest course of footing 5 metres 20 centimetres (17 feet 1 inch) in diameter. These walls had five courses of foundations and were composed of fairly large stones, but with two thicknesses occasionally of small stones used as a course.

The foundation of the remainder of the structure was formed of three continuous layers of large stones to a depth of about a metre and a quarter (4 feet 2 inches) below the

pavement [fig. 6]. A fragment of the foundation for the steps was found at the western end of the perron: the lowest bed was continued to carry the pavement of the courtyard.



FIG. 6.—Close-up: Pavement and Foundations, seen in section in the south peristyle

courses of Temple *B*, and the walling shown low down and parallel to the facing is a fragment of Temple *C*.

The central basis was free from the paving foundations—it rose to a sufficient height, and doubtless was considered substantial enough to carry the cult statue.



FIG. 7.—Fragment of *C* inner enclosure on south-west (under the man's feet); *B* foundations continued on left, and foundations of *B* cella—South *C* wall in background

(eight inches) in thickness, rough on the underside and three-fourths up the sides—the upper one-fourth worked to a true and even surface to fit its neighbour—the top surface was worked

There was a straight joint in the foundations within the cella, about 5 metres (97 centimetres) (19 feet 7 inches) distant north and south from the cella walls, and a little eastward of the basis, which had a facing inwards, and was composed of small coursed stones, about sixty to seventy centimetres (2 feet to 2 feet 4 inches) in thickness, and bonded into the large foundations at the rear. This probably supported an inner colonnade, or possibly it was a temporary facing to the foundations, allowing the central portion to be filled in later—shown in fig. 7—it was built upon the lowest

Fig. 8 is taken from the north-east, and shows the marble quoins, yellow limestone courses between, and one stone of the topmost of the three foundation courses abutting against it to the north. No marble quoins were discovered at the western end, as the walling had been much disturbed, but Hellenistic foundation blocks were found placed upon it.

PAVING.

The topmost course of foundations was very level on its upper surface, facilitating the laying of the marble floor, which naturally varied in thickness, averaging twenty centimetres

smooth. The slabs are of various shapes, having been cut, not to a pattern, but to the form which in each particular case entailed the least waste of material. Hardly any are even approximately square, though many have but one corner cut away. The majority of those which survived were of keystone shape. The polygonal slabs were, in most cases, the smaller, used for filling interstices, and even-shaped slabs occurred, with the inner angle filled with a small block.

Where columns were destined to stand, larger paving slabs than those ordinarily used were laid down. To this use of larger and therefore better slabs under the base plinths is due the



FIG. 8.—The Basis from the North-east. Marble quoin of Croesus period in foreground, and *C* walling to left of it (the *B* wall behind cannot be seen, ending in another marble quoin). On extreme left is a Croesus pavement foundation block.

fact that in all but four cases the pavement which supported columns has been removed wholly by later builders, while much of the outer column slabs has been left in position. The position of the columns can be roughly distinguished by their gaps. No special foundations were put in under the columns, the usual three layers of foundation blocks being considered sufficient to support the weight. As will be noticed later, however, these have not always fulfilled the expectation. The pavement ran under all walls, the slabs being usually laid lengthwise, under the line of wall; but even there the arrangement was not very symmetrical, no effort being made to secure uniformity of dimension or parallelism of sides.

All the pavement surface would appear to have been left rough in the first place until the superstructures had been bedded upon it, then the exposed portions were levelled and

worked to a smooth face. In certain places the faint dividing line between the rough and smooth indicates the position of a vanished superstructure. Three small T-shaped incisions occur in the pronaos pavement, nearly on a line with the third rank of columns from the western end—these were obviously sockets for marble or metal uprights.

From the levels taken of the surviving patches of pavement, it appears that the whole floor of the peristyle sloped slightly from the cella walls outwards to the edges of the platform, and increasing to the extreme angles: but owing to the numerous settlements of the platform, caused first by the weight of the Croesus superstructure, and afterwards by that of the increased height and weight of the Hellenistic temple, the original gradients can only be approximately correct. The slope from the cella wall to the outside edge of the platform works out to 15 centimetres (6 inches), with a further fall of 30 centimetres (1 foot) at the four angles.

THE WALLS.

The north wall has been entirely removed, but its inner line can be traced on certain surviving slabs of pavement.

The east wall has also perished, but its position is defined by a mass of concrete at the south-east angle, and a portion of its western foundations were uncovered in the axis of the temple.

The eastern extension walls and antæ have entirely disappeared, together with the majority of their foundations.

The south wall has left more traces, and a short length of it actually survives in position.

At a point about 35 metres (115 feet) from the south-east angle is a portion of the plinth and three courses of the wall. Byzantine concrete abutted on the inner face, cementing it in



FIG. 9. South Wall of Croesus Cella seen in section from the west. Facing courses on either side, and space for core between. Hellenistic foundation courses to the right, and Byzantine concrete on left.

position, and Hellenistic foundation blocks of blue limestone abutted against the outward face. Thus the whole width of the plinth course survived, and the facing blocks of the course above with a portion of the inside filling, as shown in fig. 9. The thickness of the wall was 1 metre 93 centimetres (6 feet 4 inches), and the plinth 1 metre 98 centimetres (6 feet 6 inches). The prolongation of the walls to the west of the western cross wall survives at the south-west antæ, namely, that of the plinth course and one block of walling only. Hellenistic foundations encase this on three sides, and rise to a height of about 1 metre 92 centimetres (6 feet 4 inches). A fragment of the west wall of the cella survives, between the western portal and the north wall. The south-

eastern corner marks the return for the doorway. Only the plinth course and one block of the superstructure remains, as shown in fig. 10.

The thickness of this wall is 2 metres 1 centimetre (6 feet 7½ inches), of the plinth 8 centimetres (3 inches). This excess in the thickness to the west of the lateral walls carries on the tradition of the preceding Temple C.

Presumably the reason for strengthening the west wall is to be found in the fact that it was interrupted by the great door, or that it rose higher and supported the main weight of the roof. It is, however, curious that, nevertheless, its lowest foundations are not so broad as those of the south wall. This portion of walling had settled very considerably, especially at its northern end—the gradient being as much as 15 centimetres (9 inches) in a length of $1\frac{1}{2}$ metres (14 feet 9 inches).

REMAINS OF COLONNADE.

Four portions of the colonnade of the peristyle remain—two inner and two outer. On the inner row the plinth and lower base remain *in situ* of the fifth column from the eastern end of the northern rank. This is encased by foundations—mostly of marble, from the Croesus temple—of the Hellenistic temple, which carry the paving, plinth, and lower base of a Hellenistic column, as shown in fig. 11. A large fragment of corona and a small fragment of a capital were among the foundation blocks.

The third plinth of the inner rank in the south peristyle from the west end still survives, badly cut about and surrounded by Hellenistic foundations: the plinth is in two pieces, which were joined by dowelled mortices.

Of the outer row only a half plinth of the third column, on the south side, from the west end remains. Presumably Croesus remains of the eleventh outer column of the south peristyle from the west end would be found if the Hellenistic foundations surrounding it were to be removed. It was upon this Hellenistic foundation that Wood found the fine base now in the British Museum. I found that the Croesus pavement upon which this foundation stands was very considerably out of level. The Hellenistic builders started to correct this, and even at the present time the top courses of this foundation were perfectly level, thus conclusively showing that the Croesus temple settled before the Hellenistic structure was superimposed.

MARBLE AND COLOURING.

The marble used was quarried near Kos Bunar, about seven miles (from the site) up the Cayster Valley, and is of a highly crystalline variety, white in colour generally, but here and there slightly tinged with blue patches and veins. Where salts have affected interior blocks the surface has disintegrated to the consistency of crystalline sand, and crumbles at a touch. The surfaces of the blocks which were not used for walling were brought to a smoothly rubbed finish, but not polished. The walling was hammer-finished and tooled at the edges, the arris often taken off. The bearing surfaces of column-drums were worked completely before being adjusted, and not ground against each other when in position.



FIG. 10 - Northern Fragment of West Wall of Temple showing remains of doorway.



FIG. 11 - North-east Column Base - Croesus plinth and lower base built over with Hellenistic foundations. The Croesus pavement is shown to the left, and the Hellenistic is the third from the top.

These bearing surfaces retain traces of a red mastic. This colouring would not have been visible when in position: therefore it must have been applied when the masons wished to test the smoothness of the surfaces.

On other architectural fragments traces of colouring intended to be decorative can be detected. A white mastic seems to have been used in some cases as a ground, the marble being slightly absorbent. The colours applied thereon were a pure rich blue—observed on surfaces which were newly exposed and therefore damp—and more frequently a rich red. Several fragments of dart-and-leaf moulding showed faded yellow and brown, which may be decayed remains of bright yellow and dark red.



FIG. 12.—B, Usual Torus, or upper base.
A, Centre of Volute.

a slight projection from the circular base, and the outer rank had rather more of a projection. [See Plates II. and IV.] Numerous fragments of varieties of moulded torus or upper base were found, and appear to have been always bedded upon the lower base. The most common type is the parabolic torus, which is enriched by shallow, narrow flutings separated by small V-shaped grooves, clearly shown in fig. 12, and in Plates II. and V. Bases 1, 2, and 4j.



FIG. 13.—A, An attractive type of Torus. B, A simpler form of the same character.

A very attractive torus is that shown in fig. 13 and Plate II., base 3c. The upper part of its surface is treated in a different manner from the lower. The upper is light and graceful, while the lower is massive and substantial. This effect is produced by the lower portion having convex readings instead of flutings. A more simple variety of the same style of torus is shown on the left hand of fig. 14, and Plate II., base 4d. Another variety has large and small flutings alternately. It is shown in Plates II. and V., base 4c. Three varieties of filleted leaf-and-dart torus constitute yet another addition to the known bases. The one marked A [in fig. 14] is also shown in Plates II. and V., base 5. Bases 6 and 7 are in the British Museum. Base 6 [Plates II. and V.] is from a very small fragment of its lower portion, the first astragal of the lower base being worked with it. Base 7 [Plates II. and V.] is that now placed above the sculptured drum in the Ephesus room. I consider this

ARCHITECTURAL DETAILS FOUND.

BASES.—As was mentioned before, within the north-east pile of Hellenistic foundations, as seen in fig. 9, is a circular drum-shaped base (three orders of double astragals between two filleted scotias) placed above a square plinth. The plinth is about one foot in height and projected slightly from the base above. Comparing this plinth with the two others *in situ*, I have come to the conclusion that the inner rank had only

the same style of torus is shown on the left hand of fig. 14, and Plate II., base 4d. Another variety has large and small flutings alternately. It is shown in Plates II. and V.,

to be most certainly a torus base, to come below the sculpture as shown in Plates IV. and V., and not above, as in that position it destroys the line of shaft and is too bold in contour for the fine sculpture below. The joint line between the top of the torus and the lowest drum was sometimes below and sometimes above the lower astragal of the shaft, as shown in fig. 15 and Plate II., bases 1 and 2.

SHAFTS. Plate II. —Twenty fragments of shafts were studied and plotted: fourteen were found to give forty-four flutings to the circumference, three gave forty flutings, and three gave twenty-four narrow and twenty-four wide flutings. Those giving forty were of a comparatively narrow diameter, and I consider they belonged to the inner rank. The flutings are very shallow, and of elliptical section: they show a sharp arris and are not separated by fillets. Besides several in the British Museum, two good fragments of the uppermost drums

were studied. One example has a large astragal and the other a small one, both enriched by pearl and double reel [Plate III.]. The apophyges in all cases were different in curvature, and the necking from which the enriched astragal springs is, in some cases, perpendicular, but more often battering outwards or cut inwards.

CAPITALS.—Several varieties of abacus were found, always enriched either by a filleted leaf and dart, as shown at the top of fig. 14, or egg and dart [Plate III.]. There were at least three distinct varieties of leaf and dart. The leaf in every case is divided into two halves by an arris, and each side is concave in section and very similar to the torus bases. The fillet binding the leaf is generally shield shape, sometimes curving outwards and sometimes inwards. In two fragments the leaf and dart both run down and die into the horizontal astragal above the saddle uniting the volutes. The egg-and-dart designs also vary. The egg portion really is not of that shape, as will be seen by a glance at fig. 18 and Plate III. These eggs are bounded by astragals which abut one against another for about two-thirds of their depth. The astragals afterwards form a loop supporting the egg. The top of the egg is cut off flat, shortly after it begins to recede inwards.

A fine fragment of echinus was found embedded in one of the pockets between the Hellenistic piers on the south side (fig. 16 and



FIG. 14.—Leaf-and-dart Enrichments. A. Lower portion of torus base. The two fragments at the top are abacus enrichments.



FIG. 15.—Portions of two lowest drums of shafts. C has no astragal, B has had one, now broken away. A is a small section of a volute.

Plate III.7. It is broken off right through the centre line, and it shows three complete eggs to the left hand, the third being partly covered by the palmette springing from the junction of the roll or the volute, and the roll uniting the two volutes immediately above the echinus. It will be seen by the photograph to what a great extent the echinus projects from the superior part of the capital [see section Plate V.]. The volute capital shown in Plate III. was compiled from many fragments. The plan looking up shows that the double astragals of the pulvinars

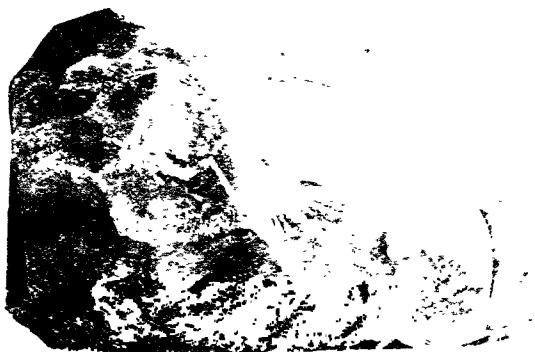


FIG. 16.—Echinus and Springing of Palmette.

are in line with the rolls round the eggs of the echinus, and as these eggs are convex, concave scotias unwind exactly from them, thus showing how the concavity of the Ionic pulvinar was arrived at.

The astragals of the pulvinars, however, do not always spring from the echinus, but loop round one towards another, and small darts spring from the diverging point: in the one shown on Plate V. double loops will be seen. When the fragments of the volutes were put together it was found that a true un-

winding proportional spiral, easily set out, was the result.

It will be seen by the side elevation, Plate V., that the faces of the pulvinars had an appreciable batter outwards, towards the top, which served an optical purpose, in some degree counteracting the foreshortening of the convolutions of the spirals, as observed from the courtyard. It may be interesting to mention that generally in Hellenistic times the volutes were not true unwinding spirals, but were larger in proportion from the centre downwards and shorter upwards. A beautiful small capital, shown in fig. 17, is built into one of the piers of



FIG. 17.—Small Capital from an Aqueduct.

the old Byzantine aqueduct, near its eastern end, and may have adorned the nave, or more probably the cloister precinct. The restoration of the floral capital shown on Plates III. and V. is a variation of the one set up by Dr. Murray: the echinus is from a fragment (with restoration) in the Museum: the rosette is of the made-up capital, but with the leaves pointed, the abacus is given leaf and dart enrichment, to be in keeping with the design.

On Plate V. will be seen one I have called "Capital of inner order of peristyle" on account of its smallness in size: it is the other capital erected in the Museum, but with the pulvinar and the palmette rearranged.

ENTABLATURE.—Nothing that could have rested directly on the capitals, such as even a fragment of architrave, was found, but three fragments of continuous egg-and-dart pattern were studied, which look very much like bed-moulds of a cornice. One built into a Turkish

tomb near the temple site (fig. 18 and Plate III.) is used in the restoration plates, IV. and V. One of a larger size in the Museum might possibly have run round the cella wall.

A large block of cornice corona was found built into the foundation of the north-east Hellenistic column foundation (Plate III.). The hollowing out of the soffit was continuous.

Another small fragment was found, as far as it went, to correspond with the large fragment. I took a paper mould of the bed-mould built into the mosque tomb, and a casting has been made from this and also a replica in plaster of the

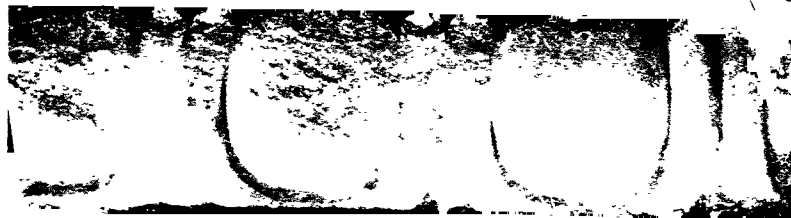


FIG. 18.—Portion of Bed-mould built into Mosque Tomb.

corona. These have now been cast and placed in juxtaposition. Portions of the sculptured cymatium gutter came to light, and several fragments of lion-headed gargoyles. Both the face of the corona and the cymatium gutter had a batter forward. A portion of what might be the tympanum (unsculptured) gave the angle of the pediment.

Roof.—The terra-cotta fragments of tiles (Plate II.) found on the site came from two distinct strata. Those found in the pockets of the Hellenistic piers were of the Croesus periods. No one completed length or width came to light, but only small fragments: these comprised top and bottom corners and sides, besides portions of the cover tiles. This pattern of tiling is evidently suited to a low-pitched roof, and it would bear comparison with many of the "one-thickness" tile designs of the present time. The marble parapet must have protected the lower part of the roof from the sudden storms which sweep down from the mountains in the locality.

Such was the material found for the study of the structure commenced about 550 B.C., dedicated 430 B.C., and destroyed by fire in 356 B.C.

RESTORATION.

In making the restoration of the Croesus fabric (Plate IV.) I have been governed by the remains still in position and by the architectural fragments found. The principal remains in position are—

1. Numerous patches of paving in the peristyle and pronaos which indicate the portions where there were no columns, and generally give the area of the temple and level of the floor.
2. A portion of paving to the north giving the boundary of the peristyle platform.
3. A sinking in a portion of the foundation evidently intended to receive the step at the west end of the peristyle, just north of the perron projection.
4. Foundations of steps at the west end of the perron.
5. Markings in the pavement showing the position of the inner plinth course of the north cella wall.
6. The inner foundation courses of the east cella wall at its centre.
7. The mould of the inner faces of the east and south cella walls near their junction, preserved by a mass of Byzantine concrete.
8. Various fragments of the south cella wall, which give the height and thickness of the plinth course and the thickness of the wall, with other portions of the walling extending to the south-west anta.
9. A portion of the west cella wall which preserves the inner reveal of the west portal, the height and thickness of the plinth course, and the thickness of the wall.

10. Three foundation facings within the cella.
11. The damaged plinth and lower base of the fifth column from the east in the inner row of the north peristyle.
12. The large mass of Hellenistic column foundation near the centre of the outer row in the south peristyle, probably inclosing the tenth column base from the east.
13. The mutilated plinth of the third column from the west in the inner row of the south peristyle, directly south of the south-west anta.
14. Half the plinth of the second column from the west, in the outer row, directly south-west from the preceding.
15. Three T-shaped dowel holes in the pronaos paving between the west anta.
16. The piers which supported the steps of the Hellenistic temple: these give the spacings of as many as seventeen of the columns in the north, and of seventeen in the south peristyle. The principal elements of which no indications exist are—
 - (a) The continuation of the north and south cella walls forming the posticum.
 - (b) The eastern portal.
 - (c) The facing columns of the eastern and western facades.
 - (d) The columns of the pronaos, posticum, and cella.
 - (e) Heights above base of shafts.

No foundations of walls other than those already mentioned were found, and therefore no other walls are shown in the restoration.

The length of the platform without the step is 109 metres 20 centimetres (358 feet 4 inches), and the width 55 metres 10 centimetres (180 feet 11 inches). It is, roughly calculated, twice as long as broad. The tread of the step is 36 centimetres (1 foot 2½ inches). The perron at the west adds 8 metres 20 centimetres (26 feet 11 inches) to the length, and its breadth has been made the width of the plinth of the four central columns, viz. 25 metres 10 centimetres (83 feet 4¼ inches).

I have given to the peristyle pavement a fall of 20 centimetres (8 inches) from the walls to the steps, and a further fall of 23 centimetres (9 inches) to the angles. The east and west cella walls are not in line with the centres of any columns in the north and south peristyle.

In distributing the columns I have relied on the statement of Pliny (N. H. xxxvi. 14) as usually interpreted, namely, to the effect that there were 127 columns in all, of which 36 were sculptured. These I have distributed as follows:—

In the peristyle, including the columns "in antis"	100
In the pronaos	6
In the posticum	2
In the cella	19

Concerning the 106 columns in the peristyle and pronaos, there can be little doubt but that those in the posticum and the 19 in the cella are not proved by indication *in situ*.

A double row of nine columns is suggested, extending the whole length of the cella. The spacing has been made at architrave level, the columns thus dividing ten squares of ceiling in the north and south aisles respectively, and the same number of double squares in the nave. Of these columns thirteen are placed upon the faced foundations before described. The hall formed to the east of this may have been shut off by a marble screen or bronze grille from the western portion. The column which I place in the centre supplies a reason for the cross-foundation eastward of the basis, and also would have formed a most satisfactory background for the statue of the goddess erected upon the central basis. All these columns are shown the same in character as those to the inner row of the peristyle.

The intercolumnar measurement in both ranks of the lateral peristyle, except for the two

terminal intervals in each row at either end) I compute at about 5 metres 21 centimetres (17 feet 1 inch) centre to centre. From the centre line of the cella wall to the centre of the inner columns of the peristyle is 6 metres 13 centimetres (20 feet $1\frac{1}{2}$ inches), and from the centre of the inner columns to the centre of the outer columns is 6 metres 12 centimetres (20 feet 1 inch). The two terminal intervals at each end of both rows in the lateral colonnade measure 5 metres 90 centimetres (19 feet 4 $\frac{1}{2}$ inches), and this intercolumniation holds good, of course, between two rows in the west and east facades. No remains were found to fix the position of the pronaos columns. Direct evidence therefore is lacking for the suggested spacing of the

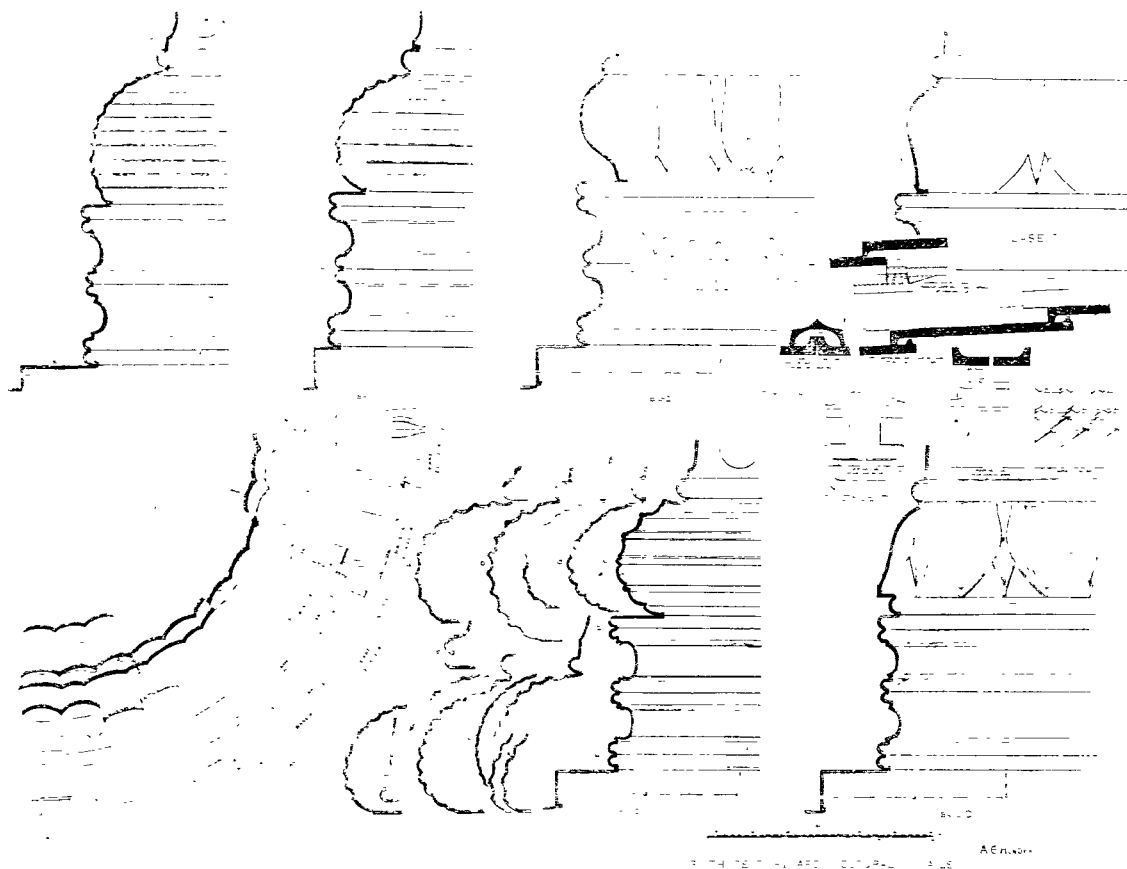


PLATE II. DETAILS OF BASES, FLUTINGS, AND FILES

Reduced from *Excavations at Ephesus*

Note: The scale is shown as about 2 ft. or an inch or more.

two central rows. The method I have adopted for determining this has been to place the centre of a column between the two T-shaped dowel holes to the south of the north-west anta. These dowel holes may have held in position a bronze grille or marble screen, intended to prevent the violation of the temple. By thus placing the column I get a measurement of 7 metres 25 centimetres (23 feet 9 $\frac{1}{2}$ inches) from the centre of the north cella wall to the centre of the northern row of pronaos columns, and an intercolumnar interval between the two pronaos rows of 8 metres 57 centimetres (28 feet 1 $\frac{1}{2}$ inch) centre to centre.

As the pronaos and posticum colonnades extend into the eastern and western facades, these last two dimensions apply also to the three central intercolumniations in both rows of those facades.

The thirty-six sculptured drums I have distributed in the following manner:

At the eastern end	10
At the western end	10
In the pronaos	10
In the posticum	6

In this manner the magnificence of the terminal façades stands in marked contrast to the plainness of the lateral façades, and there is a superb processional approach to the cella. The

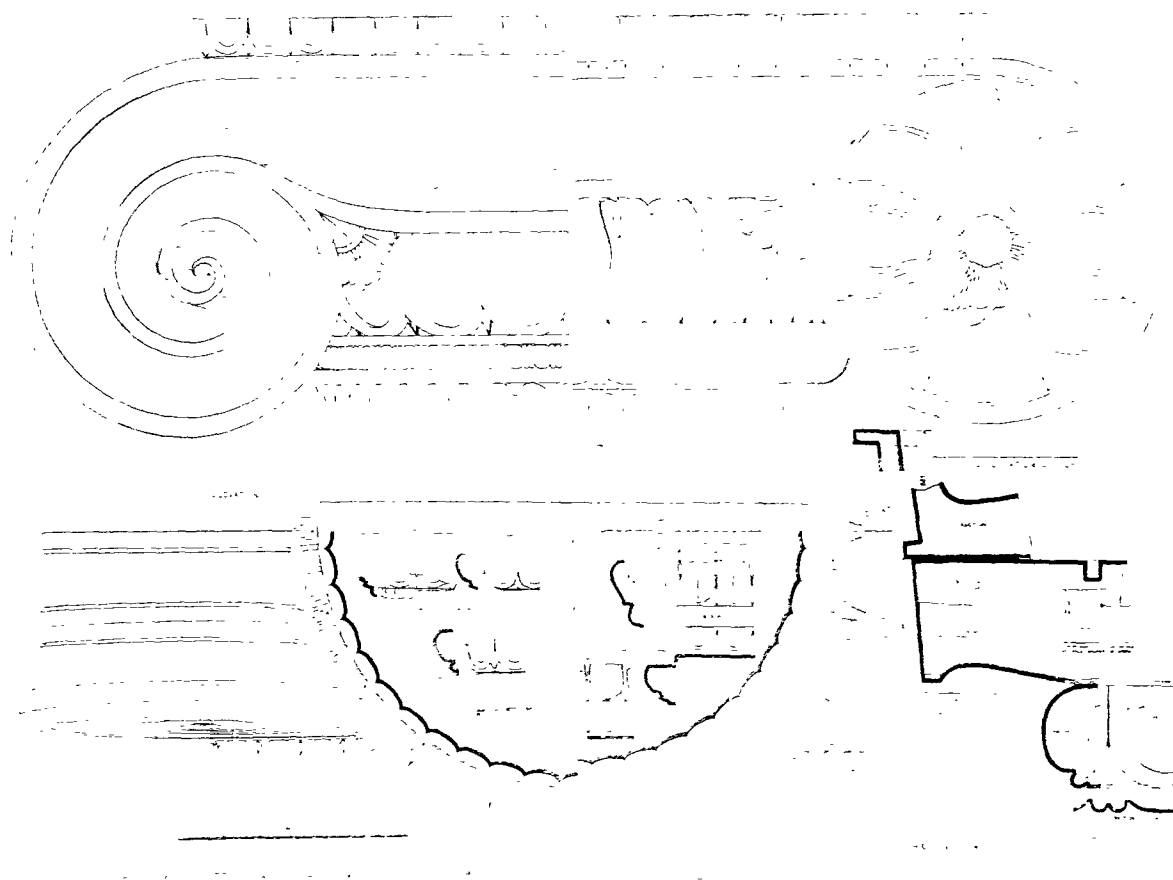
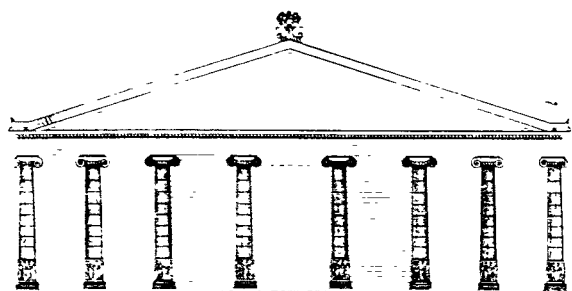


PLATE III. DETAIL OF CAPITAL, BED-MOULD, CORONA AND CYMA RECTA GUTTER

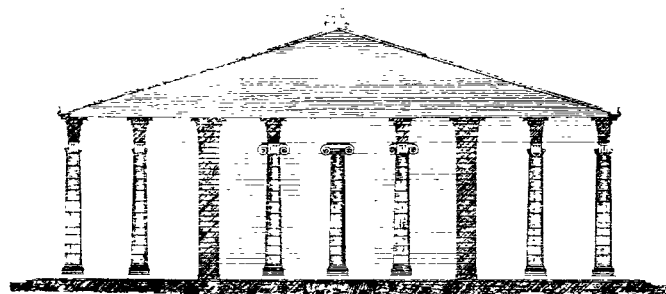
Reduced from *English Museum Facade, and at Ephesus*

sculpture is shown as carved on the lowest drum and forming a portion about two-elevenths of the shaft. Since the column in front of each anta and the angle columns in the inner row of the peristyle are of minor importance, I have not shown them as sculptured.

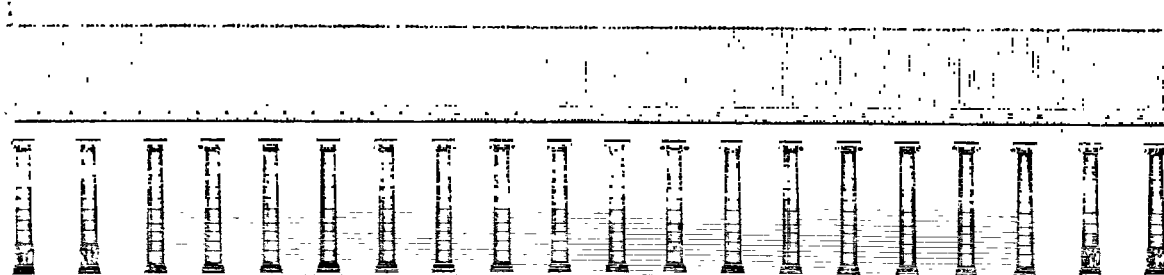
The diameter of the columns has been shown as of varying dimensions. Those with narrow intercolumniations are of least diameter, and the diameter increases with the greater span. I have given the lateral columns an inclusive height of about 8 diameters with a shaft of about $6\frac{1}{2}$ diameters. The central columns of the eastern and western façades have approximately an inclusive height of $6\frac{1}{2}$ diameters with a shaft of 6 diameters. The plinths to the outer row of columns of the peristyle are generally 2 metres 36 centimetres (7 feet



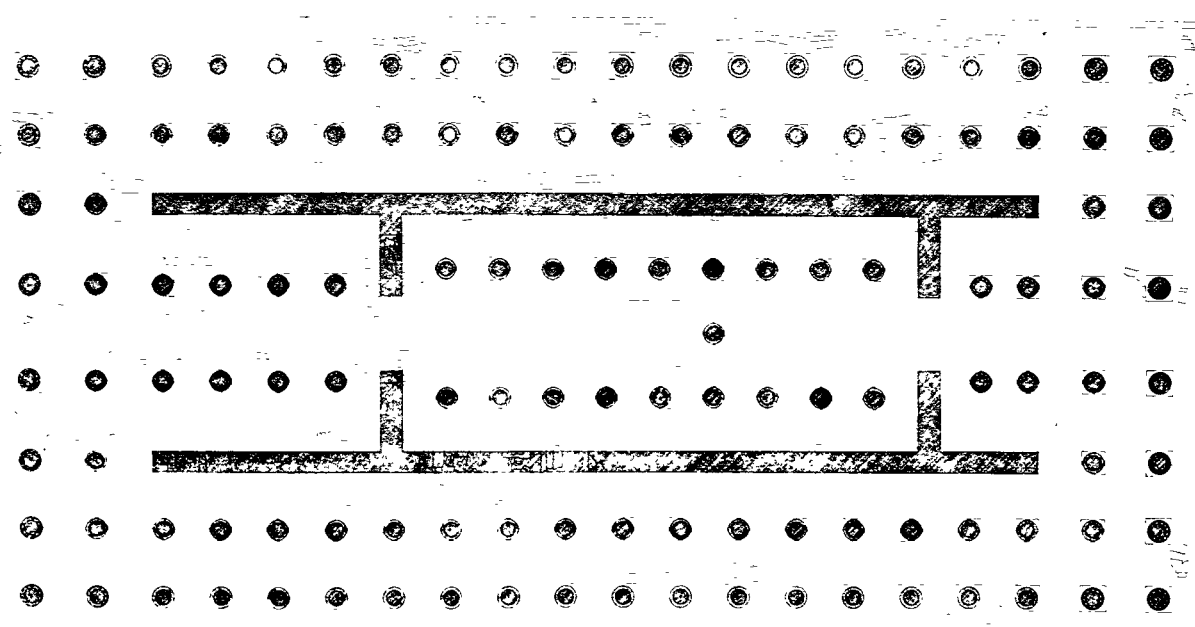
EAST ELEVATION



SECTION THROUGH COLUMN LOOKING EAST



SOUTH ELEVATION



AE HENDERSON

SIXTH CENTURY TEMPLE PLAN

PLATE IV - RESTORED PLAN, ELEVATIONS, AND SECTION

Reduced from *British Museum Excavations at Ephesus*

9 inches) square. The plinths to the inner row of the peristyle and all others are 2 metres 5 centimetres (6 feet 8½ inches). Wide spreading plinths, such as those to the external columns, would impede the use of the peristyle. For the lower base to all columns I have assigned the double astragal in three belts of varying heights, separated by two filleted scotias.

Leaf torus bases are placed under the four central columns of the eastern and western facades and the pronaos and posticum columns. The remainder are variously moulded. An entasis has been assumed in the shafts, as all fragments of drums of any length showed an appreciable curve.

Drums of forty-four flutings have been given to the outer row of columns in the peristyle except at the angles. Forty flutings have been given to the drums of the inner row in the peristyle and to all other columns except at the external angles.

Rosette capitals have been placed upon the leaf bases of the eastern and western facades, and volute capitals upon all others. (I have pointed the leaves to be in character with those of the echinus and the torus base.)

The suggested angle column is shown with alternate large and small flutings, forty-eight in all, and has a torus base of similar character. The capital is of the volute type. It will be seen by the plan that there are the usual twenty eggs to the echinus. The scotias to the pulvinars unwind from these eggs, as does also the scotia of the pulvinar of the angle volute. Thus five eggs are left free between the volutes instead of the usual six. At the inner angle one egg is free and partly covered by the palmettes.

The angle of the architrave stands directly above the face of the pearl and double reel enriched astragal of the top drum. The angle abacus sweeps outwards from the centre lines directly above the horn of the volute, where it attains an angle of about 40 degrees.

The abacus of the capitals is less in width than the diameter of the shafts, even at their narrowest, but there is considerable compensation for this in the fact that its length is about twice as great as its width, and it is supported by the pulvinars of the volutes.

The central portion of the abacus supports the transverse architrave, and the bracket portions support the longitudinal beams.

It is suggested that the architrave had three facias, capped by a pearl and reel, enriched, astragal moulding, of a similar pattern to that used as capping to the shafts. The smaller continuous egg-and-dart moulding found is suggested for the external bed-mould, and the larger for the bed-mould round the cella walls.

The corona is from the length found in the north-east column base. No dentils were found. Its soffit has a finished face the whole length, 92 centimetres (3 feet ¼ inch), and a projection of 42 centimetres (1 foot 4½ inches). The bed (see Plate III.) had unfortunately been reworked by the Hellenistic builders, so no clue as to what it rested upon was found: if dentils did occur they would have been set back the distance of the projection of the corona.

The cymatium gutter has already been mentioned. This sculptured parapet is the feature of the entablature—it protected the roof from storms, and gave protection to those who of necessity had to repair the tiling. The lion-headed gargoyles have been so distributed as to throw the rain-water just clear of the columns, and allow sufficient distance between their outflows for access to the peristyle. If this parapet were continued eaking up the pediment it would have been extremely unsightly from the rear and, moreover, would have no reason for its existence. I have therefore made it return at the angles for a short distance until the roof behind rises to its level; thereafter it rises as the cymatium to the tympanum cornice. I have inferred the angle of the pediment from a small fragment of marble which might be tympanum facing.

The roof of the temple is shown with tiling, inferred from the portions found, and I

suggest that timber was used for all construction above the corona member. The cella walls may have continued upwards to support the roof timbers.

It may be only a coincidence, but it is noteworthy that the plan of the eastern and western facades can be divided into four equal parts, namely, two parts measured from the longitudinal axis of the temple to the farthest removed face of the columns in front of the ante on either hand, and two parts from these faces to the outer faces of the outermost columns. The dimension of each of these parts is roughly 12 metres 28 centimetres (40 feet 3½ inches).

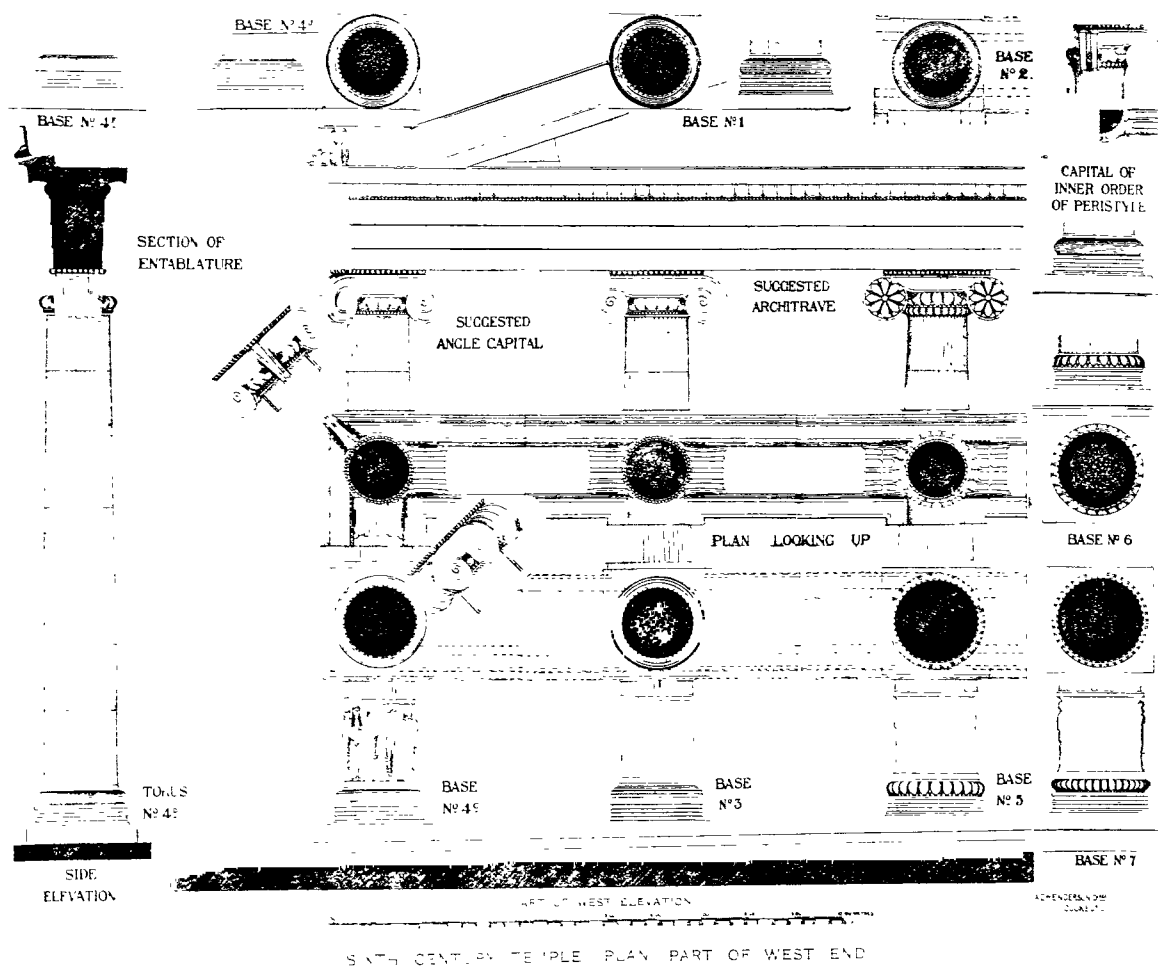


PLATE V—RESTORED PLAN, ELEVATION, AND SECTION OF PART OF WEST END

Reduced from *British Museum Excavations at Ephesus*.

Not having any actual evidence for the height of the architrave from the pavement, I have drawn an inference from this dimension and made the height of the colonnades in proportion to their length as one to four.

In support of this somewhat low colonnade I may remark that if greater height were given, the sculptures on the cymatium gutter would not have been clearly seen. The height of the entablature is shown as one-fourth of the height of the colonnade, namely, 3 metres 07 centimetre (10 feet 1 inch). This dimension is divided equally between the architrave

and the superior members. The whole height of the temple, from the pavement to the summit of the sculpture crowning the pediment, I show as 24 metres 56 centimetres (80 feet 7 inches), namely, half as much as the total width of the peristyle at the base of the shafts.

TABLE SHOWING SOME OF THE PRINCIPAL DIMENSIONS

A. S.			W. S.		
At plinth of columns			Centre to centre of columns—fronts		
Of person, including step			Front 12 m. = 39 ft. 4 in. = 13 m. = 42 ft. 7 in. = 12.25 m. = 39 ft. 9 in. = 13.57 m. = 44 ft. 6 in.		
Of platform, including step					
Total covered					
Number of Columns					
Double rank around peristyle, including 4 in pinnacles			At base of shafts		
In pinnacles			At plinth of columns		
In cella. The central column divides the cella into two parts, and forms a background for the four statues standing up in the central pinnacles			Pinnacles at west end, with step		
			Platform, with step		
In posticum			Cella		
Sculptured			Thickness of east and west walls		
Total			Of posticum		
			Length of cella, including support, door to reconstruction		
DIAMETERS OF COLUMNS FROM LOUPE ALONGSIDE					
These vary from 1.14 m. = 1 ft. 10 in. to 1.88 m. = 6 ft. 2 in.					
LENGTHS					
Centre to centre of columns of flanks					
Front 5.90 m. = 19 ft. 4 in. = 5.90 m. = 19 ft. 4 in. = 5.21 m. = 17 ft. 1 in. = 5.21 m.					
17 ft. 1 in. = 5.21 m.					
At base of shafts					
At plinth of columns					
Front of step					
Projection of person at west end, with step					
Edge of platform to pinnacles of columns					
Platform, with step					
Total of person and platform, with step					
North and south walls					
Cella					
Pinnacles					
Posticum					
Thickness of east and west walls					
At base of shafts					
At plinth of columns					
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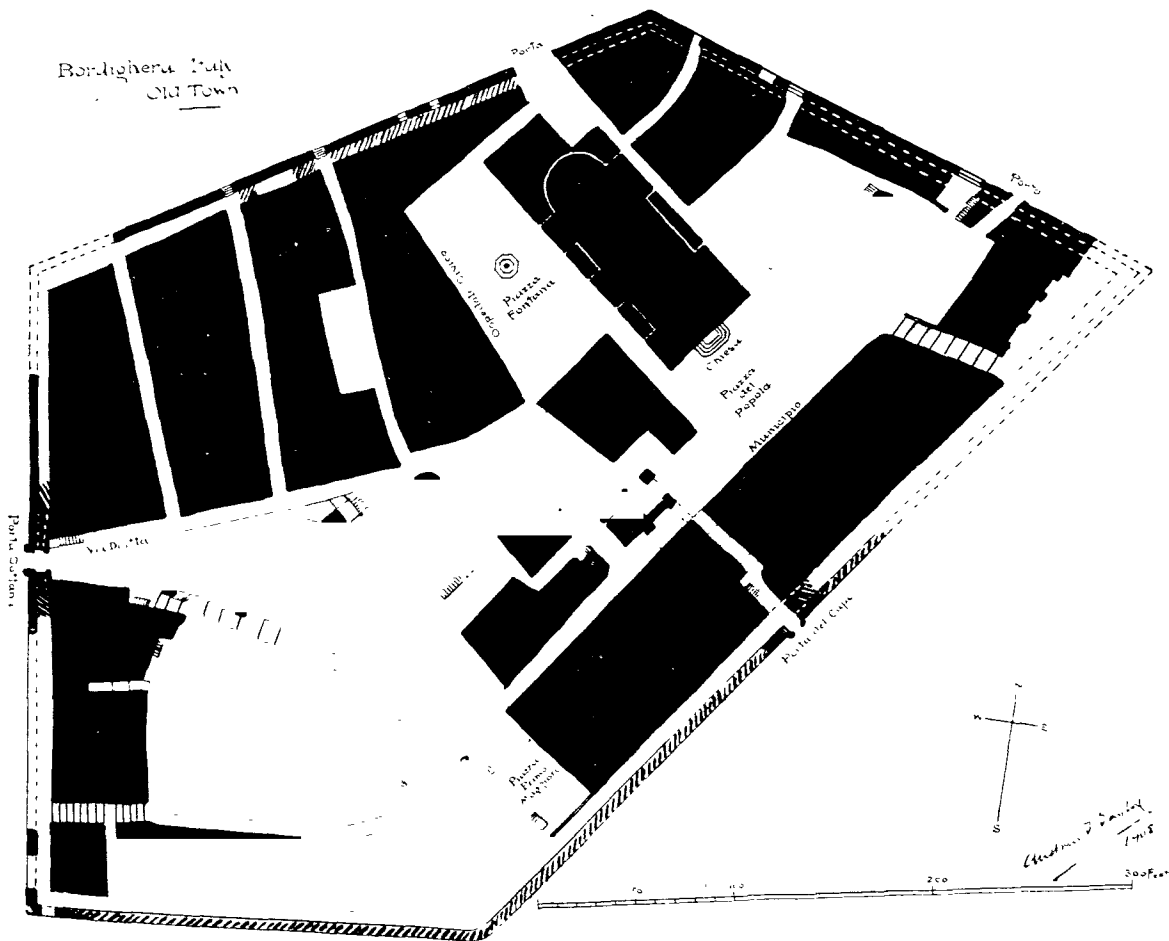
OLD BORDIGHERA—ITALIAN RIVIERA.

By ANDREW T. TAYLOR, R.C.A. [F].

THE old towns of the French and Italian Riviera are of great interest, and full of material for the architectural draughtsman and the artist. Side by side with the modern fashionable winter resorts, they still remain with their narrow, sunless, steep streets and quaint houses and churches, so that with the pursuit of health and sunshine can be combined sketching and study of the most interesting kind. Eze, Roquebrune, Mentone, Ventimiglia, San Remo, Bordighera, all have their old towns very little altered. Even more interesting are the Saracen "Rock" towns or villages that lie up the valleys and on the hill-tops a little way back from the sea, such as St. Agnese, Castillon, Dolce Aqua, Apri-

cale, &c. (*see illustration*), with narrow streets, often built over for considerable lengths, forming sombre tunnels. It must be confessed they are often dirty and malodorous, but abundantly picturesque, and with glorious views at most unexpected points.

Perhaps the most interesting of them all, because the most self-contained and least altered, is Old Bordighera, possessing as it does nearly all its old walls still standing, with three of its old gates. On a first visit I was struck with its citadel-like plan, and the free passage or street behind the town walls, originally going all round, so that the defenders could march round inside and quickly concentrate at any threatened point. On a second recent visit my interest was increased.



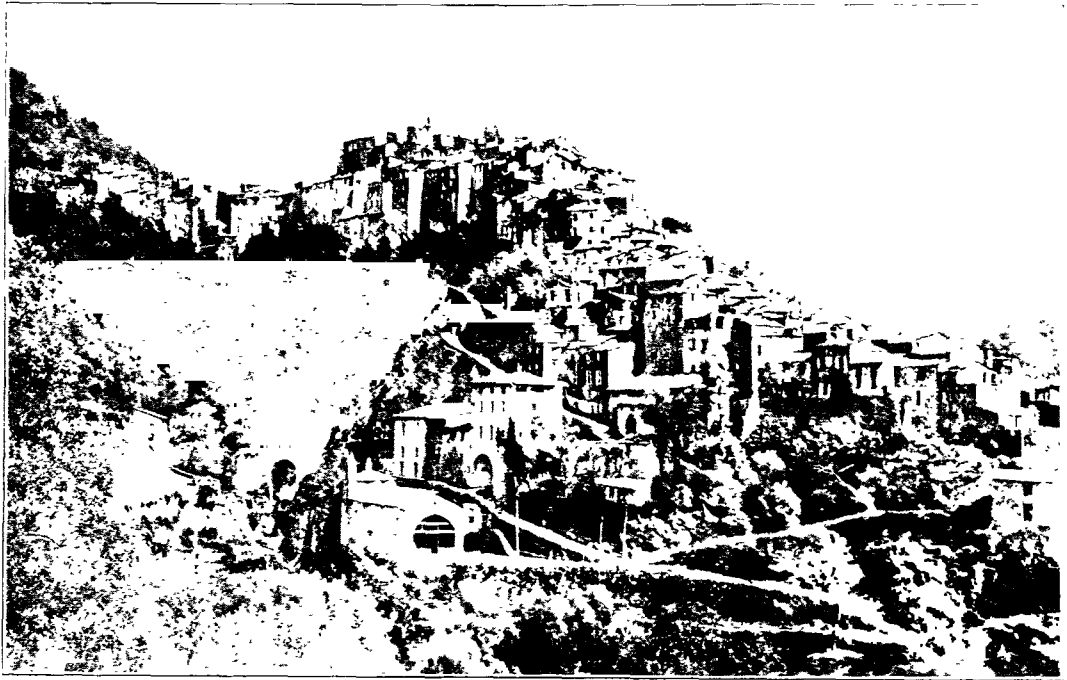


FIG. 1. THE HILL.



FIG. 2. THE HILL, FROM THE SIDE.



CHIESA DI S. PIETRO.



TORRE SOLTANA E VIA D'ILEA.



CHIESA DEL CANTO.



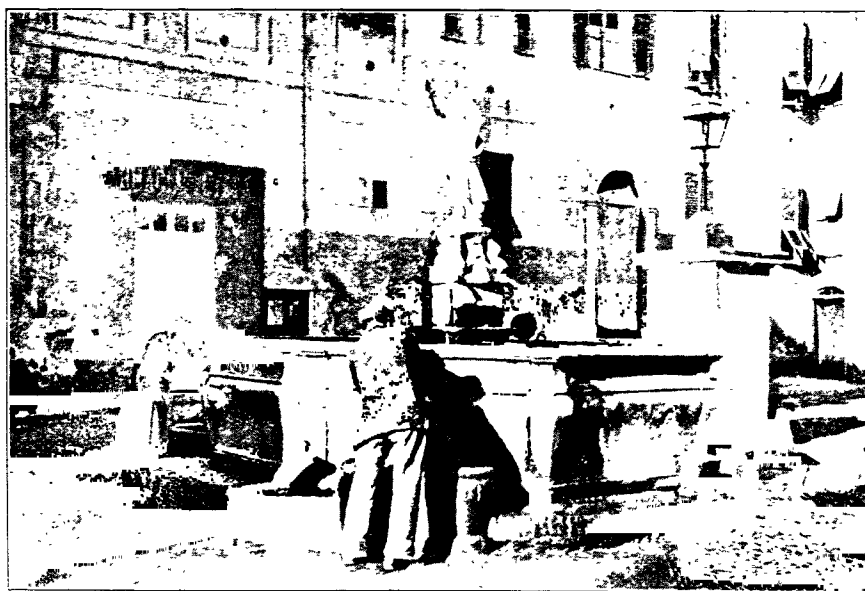
SALOTTO DI BORDIGHERA.

On investigation I found little or no information available, and no plan of the town procurable, nor could I hear of any plan being extant. I therefore, with a certain amount of audacity, decided to take measurements and make a plan for myself. What seemed to be nearly four-square turned out to be a most irregular shape. A reference to the plan will show that it is quite unsymmetrical, and apparently rather haphazard in its arrangement. The ground falls considerably—the north corner being the highest and the south-west corner the lowest, the fall of the ground being from north to south-west. Inside, the ground has been terraced up in places, so that the three main piazzas approach a level, although all have a slight fall to the south. The streets slope considerably, many of them having steps. The church, as will be seen, is on the higher part of the town, having piazzas at the front and one side: it is very simple, and with little architectural features on the exterior, but the interior is of good proportions, with pilasters and entablature and curved ceiling, all profusely decorated.

The outstanding feature of the town from a distance is the Campanile, which is quite detached and at a short distance from the church: it is the only tower in the town, and the design, with its somewhat bulbous top, is characteristic of that part of the country. There were evidently four gates in the walls, but only two of these have any architectural features remaining: the north gate has been entirely removed, leaving now only a wide space. In the Piazza Fontana there stands the

only fountain, but it is of very pleasing lines, with a figure in the centre of white marble. The streets are rarely more than seven to six inches wide, and paved with rough cobble-stones: the houses are as a rule plain—plastered and variously tinted, and devoid of special architectural features—but one house close to the church has still retained a small but beautiful staircase with polished marble columns and exquisitely carved Corinthian capitals, ground ceilings, and stone balustrades.

The special and unique features are the town walls: at the north-east corner and at the north-west they have been removed to widen the roadways, and the northern portion has been incorporated with the houses; but the remainder is fairly intact, with the streets behind the walls. Originally the houses were all kept within the walls, but in course of time here and there, and chiefly on the north side, they have been projected on to the top of the walls, leaving a covered street under, as shown on plan by the hatched lines. As all this region is subject to earthquakes, strengthening arches are quite a feature of the towns, and are thrown across the streets at frequent intervals. In one of the illustrations the arches are also shown from the houses to the outer town walls. The charm of Old Bordighera I can give but little idea of: under a generous southern sky, with brilliant lights and deep luminous shadows, and glimpses of the blue Mediterranean here and there, it dwells in the memory as a joy, and grips the heart-strings with its compelling call of the South.



THE PIAZZA FONTANA, BORDIGHERA



9 CONDUIT STREET, LONDON, W. 1. 5th Dec. 1908.

CHRONICLE.

Architecture and the London County Council.

In the JOURNAL for 4th April last [p. 359] was published a letter addressed from the Institute to the Chairman of the London County Council, in which, while acknowledgment was made of the courteous consideration given by the London County Council and its officials to suggestions made by the Institute from time to time upon architectural matters of public importance, it was pointed out how much more usefully suggestions of this kind could be made in the initial stages of a scheme than after it had been developed. The letter went on to suggest that when such matters as street planning, the design of buildings on land leased by the Council, bridges, or monumental works under the control of the Council are under consideration, the Institute might be invited to depute one or two of its members specially competent to deal with the particular subject involved, to confer with the Council or its officers charged with the matter, and give their views on its architectural aspect. Should this procedure be found satisfactory, it might be thought desirable at a later period to constitute an Advisory Committee of a few architects, with perhaps a painter and sculptor, whose experience and advice could be placed gratuitously at the disposal of the Council. This in its turn, the signatories hoped, would develop into a body corresponding with the *Conseil des Bâtimens Civils* of Paris, to which the architectural development of France owes so much. The letter was signed by Mr. Thos. E. Collcutt [President], Sir Aston Webb, R.A. [Chairman Town Planning Committee], John W. Simpson [Chairman Art Committee], Alexander Graham [Hon. Secretary].

The London County Council referred this letter to their Improvements Committee, and the following reply, dated 16th November, has been addressed to the President:—

Spring Gardens, S.W. 1. 16 Nov. 1908.

The President R.I.B.A.

SIR,—The Chairman of the Council has laid before the Improvements Committee your letter of

21st February with regard to the architectural features of improvements. The Committee are of opinion that the suggestions which the Royal Institute of British Architects have been good enough to make are of great interest and importance, and they desire me to express their thanks for the action taken by the Royal Institute. The matters mentioned in your letter have engaged the careful attention of the Committee, but, as Parliament is now discussing proposals for new legislation which, if agreed to, may have great effect on the whole question of improvements, they have come to the conclusion that it would be undesirable to advise the Council at present to come to any definite decision thereon. The Committee thought that the Royal Institute would wish to have this intimation of their views, with an assurance that, as soon as a decision shall have been come to by Parliament on the proposals in question, the Committee will again consider your letter.—I am, Sir, your obedient servant.

G. L. GOMME.

Chairman of the Council.

Local Government Board Inquiry. The Architect's Control of Work on his Building.

Mr. Edwin T. Hall, *Vice-President*, at the invitation of the Local Government Board, recently gave evidence before a Committee appointed by the Board to inquire into the relationship between architects of public buildings erected from loans sanctioned by the Board, and engineers who advise in respect of engineering work required for such buildings, the point being considered whether the latter work should be withdrawn from the control of the architect. A printed copy of Mr. Hall's evidence was subsequently sent by the Committee to the Institute Council, with the intimation that the Committee would be glad to receive any representations the Institute desired to make on matters coming within the scope of their inquiry. Among these was the question how it should be determined what plant to install at Poor-law institutions—to what extent, for instance, it was desirable that the installation of plant at such institutions should be under the direction of the architect. The matter was considered by the Council at a meeting in October last, when the following resolution was passed:—

“That the Council of the Royal Institute consider it imperative in the interest of the employers that the architect of such public buildings should have the control, direction, and supervision of everything necessary to bring to completion the building which he has designed, and that they endorse the evidence given on this point by Mr. Hall; and further that in each separate case the plant to be installed should be determined by the employers in consultation with the architect.”

A copy of this resolution was forwarded to the Local Government Board, with an expression of

the Council's appreciation of the courtesy shown by the Board in affording them an opportunity of expressing their views upon the point.

Proposed British Architectural School in Italy.

The suggestion in the President's Address (pp. 8, 9) that a School should be established at Rome or elsewhere in Italy for the benefit of British architectural students was on the agenda at the Council meeting last Monday, and a small Committee has been appointed to consider the question and report to the Council.

Fellowship Nominations withdrawn.

With reference to the announcement entered on the Minutes of the Meeting of the 16th November that the Council proposed to summon a Special General Meeting for the 30th November to consider a Resolution that By-law 9, saving the first sentence, be suspended, a notice was issued with the last number of the JOURNAL stating that the Resolution had been rescinded and the Meeting would not take place. It was further announced that the elections to the Fellowship would not be proceeded with on the 30th November, owing to the withdrawal of the nominations.

The proceedings at the Business Meeting held last Monday are sufficiently indicated in the Minutes of that Meeting, and do not call for further report.

Rearrangement of the Victoria and Albert Museum (Art Division).

The Report of the Committee appointed by the Board of Education last February to prepare a scheme of rearrangement of the Art Collections of the Victoria and Albert Museum, and to advise as to the principles which should guide the future development of the Museum, is now published as a Parliamentary Paper. The Committee, as originally constituted, included Sir Charles Dike (Cairdman), Dr. Cecil Smith, Messrs. W. A. S. Benson, Lewis Day, H. Powell, and J. C. Wedgwood, M.P. Sir Charles Dike, having resigned, his place as Chairman was taken by Dr. Cecil Smith.

The Committee's procedure in planning their work was largely influenced by the fact that, owing to the approaching completion of the new buildings and the necessity for deciding structural questions, the Board of Education desired to have their recommendations by the end of July. They therefore confined themselves to classification of the collections, the disposition throughout the building of the main divisions of the collection in due relation to one another, and the main lines upon which the subsections of those divisions and the objects comprised in them should be disposed. They have also indicated the lines on which they consider the work of the Museum should be developed so as to observe a clear demarcation of function from that

of the other National museums in London, and to establish for the Victoria and Albert Museum a recognised area of activity in the future.

As regards internal administration, it became only evident to the Committee that provision should be made for Keepers' offices in the new building, and having indicated the amount and nature of the accommodation considered requisite for each department, their proposals were accepted by the Board, and the Office of Works has since been enabled to provide the accommodation required. The Committee strongly advocate advantage being taken of the rearrangement of the Museum to form as far as possible a collection as complete for the use of the Circulation Department, so as to render that department independent of the collections on permanent exhibition, and to avoid the necessity for taking objects from the cases in the Museum to lend for exhibition in the provinces. They recommend that the Circulation Department should be so developed as to render it as far as possible the temporary removal of objects on permanent exhibition. The Circulation Department, they consider, should have an administration separate from, but in touch with, the Museum. The scheme of rearrangement proposed is based on the understanding that the build of the Oriental collections in the galleries in the Imperial Institute Road would be discontinued, as recommended by the Departmental Committee in 1902, among their respective sections in the main building. The galleries thus set free could be utilised for the future expansion of the Museum.

In view of the intention of the Board of Education that the Museum should be definitely developed as a Museum of Applied Arts, special consideration has been given to the collection of Oil and Water Colour Paintings, Miniatures, Sculpture, and Prints and Drawings, some portions of which do not admit of the application of principles of arrangement that may be applied to the collections of Metalwork, Woodwork, Textiles, &c. The inclusion in the Museum of paintings which have no direct bearing on any of the applied arts is considered an anomaly, and their transference is recommended either to the National or the Tate Gallery. The natural scope of the Museum should be the collection for exhibition of finished paintings from the artistic point of view. In the event of its being found impossible, owing to conditions of bequest, to transfer certain of the picture collections, the Committee suggest the utilisation for them of the galleries to be vacated by some of the Oriental collections in the Imperial Institute Road. The primary interest of mosaic and mural painting being decorative, these works should properly be assigned to the Victoria and Albert Museum, the National Gallery taking only such exceptional examples as are required of a particular master's work or for the illustration of the historical development of painting. As regards sculpture, the Committee consider that an ideal arrangement might be

to co-ordinate all the National collections in one building or in adjacent buildings. As this is for the present impossible, they suggest that the Museum be meanwhile regarded as the home of all classes of sculpture which are not included in the British Museum collections, with the further provision that of post-Renaissance sculpture only specimens should be included which may be selected as the most artistic examples of applied design. Purchase of sculpture should be confined for the future to such objects only as have an important bearing on applied design. The opinion is expressed that the scope of the section of Prints and Drawings should be as far as possible confined to such examples as illustrate the history and development of decoration and of the applied arts.

The Committee propose that the objects comprised in the Museum collections shall be arranged in eight departments—viz., (1) Architecture and Sculpture; (2) Metalwork; (3) Woodwork, Furniture, and Leather; (4) Textiles; (5) Ceramics, Enamels, and Glass; (6) Paintings; (7) The Library; (8) Engraving, Illustration, and Design. In the arrangement of the various sections the following principles should be kept in view: (1) There should be formulated for each section a reasonably logical scheme, illustrating the technical and artistic development of the particular industry represented, and that scheme should be adhered to in the arrangement of the specimens; (2) Where specimens are not available for the complete illustration of the sequence of development, attention should be drawn to the deficiencies by means of drawings and photographs, with the view of substituting for these, as time goes on, actual specimens acquired by gift or purchase. As regards the collection of casts, which are mainly from architectural originals, the Committee, while recognising their value and allotting additional space for their arrangement on a more intelligible and useful principle, deprecate very strongly further additions to the collection, except where needed to illustrate or supplement originals.

Dealing with the collections of Architecture and Sculpture, which for the most part are arranged in the East and West Halls, the Report states that endeavour has been made to secure as far as possible strictly chronological arrangement. The plan of building specimens into the Museum structure is not commended. Such objects should be placed where they are easily available for consultation, and no attempt should be made to suggest the position or surroundings (which must be inadequate and misleading) for which they were originally designed. Provision, however, should be afforded as near the object as possible of a model, photograph, or drawing of the building or part of the building from which the detail in question has been removed.

The Committee's proposals for an Architectural Index, a matter in which they acknowledge the assistance derived from Professor Reginald Blom-

field's suggestions, are best given in the words of the Report:—

The object of this Index should be the illustration by means of models, photographs, and drawings of the development of architecture. A number of models already exist in the Museum which would enable a beginning to be made with the formation of the Index.

In the process of arranging such a series the directions in which the main collections, both of originals and reproductions, need extension would become apparent in a way that should be of great service in determining future purchases for the department of architecture.

Illustrations of the early and archaic forms of architecture might be grouped immediately to the west of the main entrance, and along the passage would be shown the development of Oriental architecture in proximity to the large specimens in the West Hall. In the wide lobby, at the point where the passage opens to the West Court (old Science Library), now allocated to Oriental woodwork, the larger Oriental models or buildings would be placed; similarly the models of Italian buildings might be placed in the corresponding lobby which leads into the East Court (present Tapestry Court, but hereafter to contain casts of European stone carving and applied sculpture). The whole of the passage to the right of the entrance would be devoted to European architecture.

At every point the labels should indicate where to look in the Museum for more ample illustration of the subject and should if necessary refer the inquirer to other London Museums or to buildings easily accessible.

To perfect such an Index, to work out its arrangement in the most conveniently logical order, to make it complete, and yet not redundant, attractive in appearance without descending to mere prettiness, would no doubt be a work of time and much thought and experiment. But since all the objects would be small, subsequent rearrangement would not be costly, and could be carried out piecemeal, section by section, as material accumulated. For instance, photographs would at the start probably predominate—and photographs would always be invaluable—but in the mass their monotony is unattractive. Scale drawings are necessary for the student, but again are not attractive in the mass. The perfect Architectural Index should, if possible, include a large number of old engravings and good coloured drawings.

The Museum staff are already alive to the principle involved (as witness the drawings appended to the Montreal window and to Sir P. Pindar's house). It should be followed throughout the department, for instance, the openings of the carved Italian doorways should be fitted in with good illustrations of their position in the complete building and of other similar doorways.

Side by side with scale drawings of the Museum specimens, should be placed outline drawings to the same scale of well-known and accessible buildings for the purpose of impressing upon the student the value of scale.

It is proposed that some of the larger specimens of woodwork, being considerable portions of buildings, shall be placed in the Architectural Court on the north wall, so that they will lead up to the woodwork on the floors of the several courts, and so to the old part of the South Corridor, which is to be exclusively woodwork.

The Ceramic collection to be housed in the new galleries is so large, and in the main so excellent, that it is hoped to arrange it in a fashion that will show the historical development of the craft both on its technical and artistic sides, in a way that no other collection would admit.

Complete plans of the various floors showing

the disposition of the Collections are given as an Appendix to the Report.

Higher Education for Architects.

A claim for the provision of higher education for architects in the new University of Dublin is being actively put forward by the Royal Institute of the Architects of Ireland. A letter recently addressed by the Council of that body to the Dublin New University Commission says:—

"The Council of the Royal Institute of Architects of Ireland, desirous of promoting higher architectural education, and of affording students increased facilities for acquiring, conjointly with, or as a preliminary to, artistic and exact technical attainments, a liberal general education, with opportunity of proceeding to a University degree, deems the time opportune for bringing before the Commission the matter of architectural education in Ireland, with a view to the possible establishment of a Chair of Architecture in the new University.

"In the University of Liverpool there has been established for some few years past a Chair and a School of Architecture, with the stated object of providing for architects professional education of a University standard side by side with the students of other professions, and the University now grants the degree of Bachelor of Architecture (B.Arch.). The School is recognised by the Board of Architectural Education, and is terminally inspected by visitors representing the Board."

The Council conclude by an expression of their willingness to co-operate and assist with advice in the formation of a scheme of architectural education under adequate professional control in connection with the new University.

Mr. Henderson's Restoration of the Sixth Century B.C. Temple at Ephesus

Mr. A. E. Henderson, who describes in the present number the remains of the Croesus (sixth century B.C.) Temple of Artemis at Ephesus, has a notable drawing in the autumn exhibition of the Royal Society of British Artists depicting his suggested restoration of the fabric. The restoration is based upon the suggestions given by Mr. Henderson on pp. 89 *seqq.* The central statue is an adaptation of two small ivory statuettes brought to light during the excavations. A grille is suggested at the entrance to the pronaos, where the T-shaped mortices were found. The design is based on "The Weepers' sarcophagus found at Zelon, but with capitals after the model of that found at Latapsacus on the Hellespont." On page 94 Mr. Henderson gives his reasons for the return of the cymatium. Koldewey and Puchstein, in their restoration of Temple C at Selinus, indicate the return somewhat on the same lines. Mr. Henderson states that there is nothing to prevent the usual acroteria being placed at the angles. The crowning acroterium is a rather com-

mon form of the goddess as mistress of the animal world. A small ivory plaque of this type was unearthed near the central basis. The *B. A. O.* of the 21st November has a four-page plate showing an admirable photographic reproduction of Mr. Henderson's drawing.

The L.C.C. Works Department

The following recommendations of the General Purposes Committee, arising out of the decision of the London County Council to discontinue their Works Department, were moved for adoption at the County Council meeting last Tuesday—viz.: "(a) That the premises occupied by the Works Department be transferred, as surplus property, to the Improvements Committee from 1st January 1909, with the proviso that the Works Department may occupy the premises, subject to one month's notice, until such later date as the committee controlling that department may require, or as the premises may be sold or let. (b) That the Works Committee be authorised to arrange for the disposal of the plant and stock of the Works Department. (c) That it be referred to the General Purposes Committee to submit amendments . . . to provide for the execution by direct employment of labour, under the direct supervision of the executive officer concerned, of works which it may be desirable to carry out by this method." The recommendations were adopted, with the omission in (a) of the words "or as the premises may be let or sold."

The Advancement of Craftsmanship.

The Carpenters' Company, having in view the decadence of apprenticeship, has decided to give, in its Hall, a series of lectures on "Preliminary Design in the Constructive Arts," in accordance with its ancient traditions, for the advancement of the best work in the arts connected with building. The lectures will, in the first place, be for all craftsmen and those engaged in actual trades in connexion with the constructive arts, but all of either sex and of any trade or profession are invited to attend. Admission will be free by ticket. The lectures will last about three-quarters of an hour, and at the close questions on them may be asked. At the end of the course prizes will be offered to those who have attended not less than eight lectures. Though it is hoped the lectures will be more or less exhaustive, the idea is to encourage those who attend to study the subjects for themselves. Between January and April next the following gentlemen will give lectures on various arts connected with building:—Messrs. Weir Schult, Guy Dawber, Rammy Green, Tramp Voysey, Baillie Scott, Spooner, Laurence Turner, and Stukie Gardner. Ticket of admission to the lectures, and any further information, can be obtained from Mr. J. H. Freeman, Clerk, Carpenters' Hall, London Wall, E.C.

The Decline of Apprenticeship

One of the questions which received special attention at the International Congress of Contractors for Building and Public Works held in Paris from 15th to 19th November, was that of apprenticeship, and the serious need there is for training up proper workmen for the various industries related to construction. The following resolutions dealing with this subject were passed:

"That in the case of commerce and industry apprenticeship is to be deemed obligatory on the different professions, which are bound to provide means of support for it, as also to take measures to organise it thoroughly; further, that the requisite legislative enactments should be passed to ensure the provision of funds for this purpose."

The chief speaker on the subject was M. Villemin, who deprecated too much State interference in this matter. Employers in industries should rely upon their own initiative in the matter of training apprentices, and every employer should be compelled to do his share in the work. The mission of providing such training should be given by law to chambers of commerce, or other similar bodies representative of every industry. The instructors should be drawn from the ranks of those employers and workmen practically engaged in the respective industries, and their remuneration and the other expenses should be provided for by a fund to which every employer should be bound to contribute. In some centres, manual training schools might be necessary, but the system advocated was designed to be so elastic, and to leave in the hands of those responsible such latitude as would enable manual training to be given in every village throughout the country, such manual training to follow on as soon as the child leaves school, and be continued until he is sixteen years of age. This system should be accompanied by an amendment of the existing law, so that apprentices may work in the same shops and on the same works as workmen, even though the latter work longer hours than are permitted to apprentices. Apprenticeship should be obligatory on those who desire to enter an industry, and every apprentice should be obliged to produce a certificate of training and apprenticeship before being admitted a journeyman. M. Villemin praised the Danish system, which required every apprentice at the end of his term to prove, by practical test before a competent jury, his title to be admitted a journeyman. The Danish system has proved so successful that the general practice in Denmark is for the workman to prefer to work by the piece rather than by the hour, and the supply of labour is ample and of excellent quality.

Historical Monuments Commission.

In the House of Commons on Tuesday, 24th November, Major Anstruther-Gray asked the Prime Minister whether he was aware that while other

societies, such as the Royal Archaeological Institute, the Royal Institute of British Architects, and the British Archaeological Associations, were each formally invited to submit names to serve on the English Historical Monuments Commission, no such invitation had been sent to the Society of Antiquaries of London, which had thus no official representation on the Commission; and whether he could state the reason why the Society of Antiquaries had been ignored.

Mr. Asquith replied that as he was unaware who among the members of the societies referred to was best suited to assist on the Royal Commission on Ancient Monuments, he had invited those societies to submit names. The prominent position of the Society of Antiquaries made it unnecessary to follow the same course in their case, and, in accordance with the usual practice, he had used his own discretion in the selection of members from that body to serve on the Commission. The fact that out of the eleven members of the Commission five were Fellows of the Society of Antiquaries—one of them having been President of the Society for many years—should, he thought, be sufficient proof that neither in intention nor in practice had the Society of Antiquaries been ignored.

The Smithfield Gateway.

An effort is being made to preserve the ancient gateway to St Bartholomew the Great, West Smithfield, which dates from the early part of the thirteenth century. Sir Aston Webb, R.A., who has had charge of the restoration of the Priory Church during the last twenty-four years, in a letter to the Rev. W. F. G. Sandwith, the rector, says:—"I have now received a definite offer from the trustees for the purchase of the property over the gateway and 6 feet to the south thereof (if the trustees can have a satisfactory offer for rebuilding the remaining portion of the property) on the terms as valued by their surveyor, namely, £75 per annum on lease, or for the freehold £1,875, the offer to be open till 1st January 1909. Should this offer not be accepted I understand it is the intention of the trustees to let the whole on a long building lease, when these picturesque old buildings would be pulled down, and great buildings, something like those lately erected on the north side, would take their place. This would entirely destroy the appearance of the gateway and make it little better than a dilapidated and neglected ruin. As the architect who for many years has had charge of your church I venture to urge the great importance of the preservation of this property, not only to your parish of St. Bartholomew the Great, but also to the City of London. It is one of the most interesting relics of the few mediæval fragments which the City retains, and it would be lamentable indeed if in the course of one year the City should lose Crosby

REVIEWS.

TOWN PLANNING.

Modern Civic Art in the City and Beauty. By Charles Melville Robinson, Author of The Improvement of Towns and Cities. Second Edition. London 1903. G. P. Putnam's Sons.

The great and pressing importance of the study of the general principles of Town Planning amply justifies especial note being taken of the above recent addition to the Institute Library. This work, which is on somewhat similar lines to the author's previous work, *The Improvement of Towns and Cities*, shows, however, an advance in descriptive force that must commend it to all classes of readers. Commencing with a consideration of the influence of accumulated wealth on civic evolution, the advances that have been made in practical matters, and the likelihood of rapid future developments in those artistic, this book proceeds to define civic art as one expressing the idea of community and combined effort. The author's view of civic art is that beauty is subordinate to humanity, demanding that the surroundings of men should be clean, wholesome, and uplifting, as well as pleasant to see. The necessity of a definite ideal as an inspiration to continued efforts is also emphasised. The body of the work is devoted to the discussion of principles on which such an ideal can be based, and these are handled in such an instructive and comprehensive manner that it seems most desirable to give, at any rate, a brief summary of the succeeding chapters.

THE CITY'S FOCAL POINTS.

CHAP. III - THE WATER APPROACH

Most towns suffer from a lack of definiteness in the impression they make as one approaches them, and the first impression (the impression as a whole) counts for much. The most favourable place from which to view a city is usually the water. Most cities possess some such view-point, and the picture from river, lake, or sea demands attention. Though sea or lake may seem the more important, it must be remembered that with the river, the opposite shore and the bridges provide more numerous view points.

The rapid stream is picturesque in itself; to the navigable one the craft afloat on it adds the charm of variety and human interest. The complexity of this subject and the very varied requirements admit of the broadest rules only.

Some part should be reserved for public enjoyment, and the possibility of carrying a drive or promenade above the commercial wharfage may be considered. The problem will sometimes involve the embanking and reclamation of mud flats and their utilisation as park lands.

Every effort should be made to reduce to order the too frequently ragged and neglected state of the water front.

The interdependence of quays and bridges and the harmonising of the bridges with their surroundings both demand careful study.

CHAP. IV - THE LAND APPROACH

In the past the walled city had to make special and formal provisions for the land entrance, but the modern city has no such bounds, and growth is incompatible with any such definite entrances. The coming of the railways once more brings the traveller into the city at a fixed point, as the flying glimpses from the train can hardly be said to count.

The significance of the station approach was for long overlooked, though the very form of the terminal station suggests a portal. In the surroundings of a railway convenience is paramount, but this need not preclude their being pleasant and attractive, though elaborate decorative effects are in most cases better reserved for less distracting locations.

In smaller cities the station square may be made a component of the park system. The high-level station gives an opportunity for fine terracing.

Referring back to the passage of the railway line through an urban area, much should be done towards ameliorating the present forlorn aspect usually presented to the traveller.

CHAP. V - THE ADMINISTRATIVE CENTRE

Public buildings should be grouped around an open space as forecourt. Preferably such a group should be placed on a water front, or alternatively on an eminence.

The requirements of an educational group differ in demanding more seclusion and quiet.

The character and scale of the buildings forming such groups should harmonise, and they may be appropriately connected up by colonnades or formal planting.

CHAP. VI - THE BUSINESS DISTRICT

The defects of the gridiron plan, both from the practical and artistic standpoints, have become apparent. The superior qualities of Wren's plan for London, and the existing ones of Paris, Vienna, and Washington, are obvious.

The consideration given to the alignment of new streets on the Continent is exemplified by the careful report on the aesthetic effect of a street improvement in Brussels made by "L'Œuvre National Belge."

The proportions of a street define its character far more than actual dimensions.

The width demanded by the traffic is not to be determined merely by the traffic's mass. The grade and the speed of travel must also be considered in estimating the requirements. A liberal amount of land should be taken in laying out a new street through existing property, in order to avoid sites awkward to deal with, both architecturally and economically.

The redemption of a slum is perhaps best effected by cutting a great highway through it.

CHAP. VII.—ARCHITECTURE IN THE BUSINESS DISTRICT.

A degree of harmony, if not of uniformity, is desirable. Heights should be limited for three reasons:—

- (1) For the sake of good proportion for the street.
- (2) For that of the buildings' own proportions.
- (3) For the protection of neighbouring important structures.

The adjustment of the scale of a building to the distance and position from which it may be seen must depend on the architect; no statute can provide for it.

In civic improvements the most thorough consideration must be given to the effect of buildings of historical or architectural interest under the new conditions.

Every possible restraint should be exercised on the commercial instinct to make each new building out-shout its neighbours, and effort should be made to divert this rivalry into artistic channels.

CHAP. VIII.—THE FURNISHINGS OF THE STREET.

The furnishings of the business street include the lighting apparatus, the street name signs, post-boxes, fire-alarms, orderly boxes, trolley poles, and business announcements.

The evolution of street lighting is an interesting study: in the present day it has an importance justifying the most serious efforts in the design of the lamp standards, and the variation of lighting methods in relation to special features of the surroundings.

Important buildings could have their façades strongly illuminated, and decorative strings of light need not be limited to galas and exhibitions.

The street name signs offer scope for artistic treatment: they are better on lamps than on buildings, uniformity of height and position being desirable. Advertising should be limited to municipal columns or kiosks: even these can hardly be considered as an enhancement of the dignity of the street.

To sum up, these street furnishings should add to, not detract from, the convenience and beauty of the street.

CHAP. IX.—FOUNTAINS AND SCULPTURE.

Of first importance is the selection of suitable positions that will break the monotony of closely built-up streets: large spaces are not essential.

See many French and Italian examples. Such civic ornaments should be designed for a specified position, or at least the most suitable position should be sought out and adapted.

The bridge, viaduct, and open space have traditional claims, and sculpture can be here displayed without risk of future buildings destroying its proportions and harmony.

There is a general tendency to choose some site especially well adapted for sculpture, and make it the show place of the city, though this is not the

highest ideal. It is perhaps reasonable enough to do this in a place where the people will naturally congregate, and one may trust to the influence of such a place gradually extending through the rest of the city.

IN THE RESIDENTIAL SECTIONS.

CHAP. X.—STREET PROPORTIONS AND LINES.

The residential area is the battlefield between the attraction of the city and the decentralising influence of the country's spacious beauty. The main routes will be radial, and within the urban sections, with a more or less rectilinear system, afford open spaces and sites for public buildings.

Leaving the principal thoroughfares, the minor streets may be allowed the charm of variety: they may be broad or narrow, straight or crooked, just as the local conditions suggest.

The arrangement of the parks and parkways will greatly influence the plans of suburban districts, and natural contours must be regarded as the characteristic native beauty of a tract is to be retained, even if economy of construction did not dictate such a course.

In providing for a possible increase of traffic, the relative advantages of the wide road with park-like margins, and the narrow one with the building lines set back, claim to be considered; and, further, the transition from one class of occupation to another involves numerous problems of a like character.

CHAP. XI.—ON GREEN AVENUES.

In the business district these will depend on architectural magnificence; further out, they should be characterised by sufficient breadth to provide good belts of trees, and sufficient room, shrubs, and seats to make them pleasant public promenades.

The essentially formal character of the avenue renders it a particularly suitable location for fountains and monuments, while, architecturally, its scale and majesty, forms a most appropriate foreground.

Its main lines run along the avenue, and room admits of space being reserved for them; the tracks may be thrown into a separate tree-planted strip at the road's border, as done by F. L. Olmsted in Beacon Street Avenue, Boston; this can be bordered with shrubs, and clippers may be trained up and between the posts.

CHAP. XII.—ON MINOR RESIDENTIAL STREETS.

These must largely depend on the standard of individual taste as displayed in the houses, and their adjuncts: every effort should be made to encourage co-operation among the occupants of these in the treatment of local beauties and backs of their property.

As it is important in this section to preserve all existing trees, they can be placed in the charge of the parks committee, or in that of a special wardens, preferably the latter.

Where the streets are wide enough a park-like treatment should be adopted, but any planting at street corners should be kept low to avoid the risk of collisions.

CHAP. XIII. — AMONG THE TENEMENTS.

This problem is as much sociological as architectural: the worker must have quick and cheap access to his work, and unless the latter can be located outside the city, he will inevitably gravitate towards the inner residential districts. Between these and the business centre ample communication is needed, apart from the general lines of traffic to the outer suburbs.

Playgrounds and pleasantly designed gardens must be provided in these densely-populated areas, and in cosmopolitan cities like London, Chicago, or New York some concessions ought to be made to the tastes of the foreign "colonies," the city frankly catering to the natural instincts of these peoples, in so far as they violate no broadly conceived laws or just standards of morality.

THE CITY AT LARGE.

CHAP. XIV. — COMPREHENSIVE PLANNING.

This has been achieved for centuries at the behest of individuals, but only within the last few years has it been applied to the service of civil life. The Chicago Exhibition did much to initiate the movement, and the University of California influenced its development.

The interdependence of all the arts that go to make up civic art is now realised as it has not been before, and the value of a comprehensive scheme prepared by an expert commission is recognised—such a commission as would secure the co-operation of architect, sculptor, landscapist, engineer, and one member whose general culture would enable him to balance the claims of the various arts and sciences involved.

CHAP. XV. — OPEN SPACES.

These generally had their origin in the outdoor market, but the recognition of their charm in breaking the monotony of the streets led to their adoption in other cases, till we have innumerable examples of varied type.

They should appear to grow out of the street lines, and this is obviously practicable where street and "place" are planned at one time; but where they are the result of subsequent operations, as in the case of opening up disused graveyards, much of makeshift will probably be inevitable.

The opportunity offered by an open space consists not so much in surprising with a sudden splendour, as in casting a radiance as far as possible on adjacent streets; the requirements imposed by such vistas are, however, little more than hints, the convenience of traffic, the character of the surroundings, and the harmonious setting of the

abutting architecture all exercising more important influences.

An attempt to imitate natural effects in an open space, with the firm lines of buildings surrounding it, is absurd; even if it is not dominated by any monumental works, the treatment should be formal.

CHAP. XVI. — PARKWAYS.

These are distinct in their intention from the other types of street, ranging in treatment from the formal boulevard to a mere strip of natural country, with but a footway leading through it. Their object is to extend the apparent area of the park system and to bring it in touch with the largest possible number of people, without taking up an extravagant area of the land.

The parkways are mainly of two kinds: that which unites park and city, and that which joins separated parks. The former will approximate more to the boulevard type, and will probably include rapid transit facilities; while the latter is more likely to consist of a selected strip of country, possibly a small river valley or a sharp escarpment very little modified from its original state.

Occasionally the parkway falls under neither of these two heads, arising from the development of a route for its own sake, as in the case of the Riverside Drive, New York, or the Ocean Boulevard, San Francisco; this type will depend for its adoption on the existence of some markedly characteristic local feature. In the U.S.A. such a parkway would include a speedway primarily for fast driving.

CHAP. XVII. — DISTRIBUTION AND LOCATION OF PARKS.

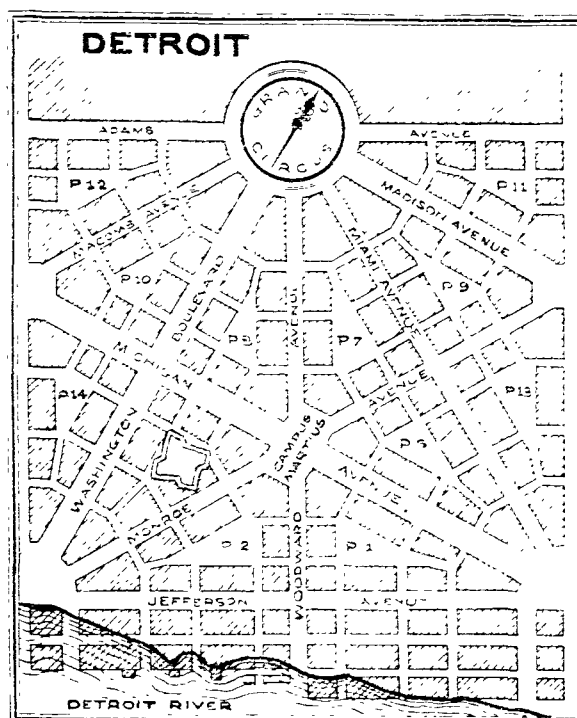
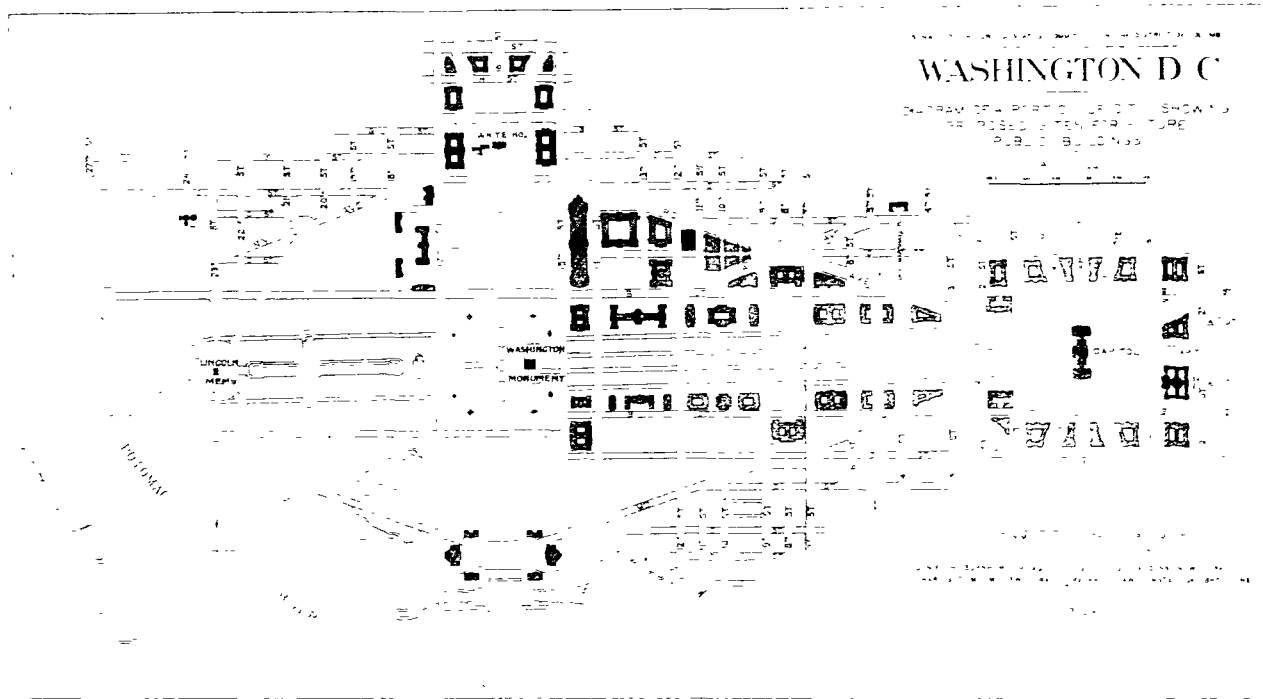
The dominant *motif* of the park is that of change from the normal conditions of town life, and this would be kept in view in both selection and development.

No definite rule as to proportion of park area to population can be laid down, but one acre to two hundred may be suggested as a minimum.

The success of a park scheme is absolutely dependent on a wise choice of sites. The late Charles Eliot laid down three principles of selection: First, that the land should possess, or afford opportunity for the creation of, interesting or beautiful scenery of one type or another; secondly, that it should be a tract ill adapted to streets and buildings; thirdly, that it should be related with as much symmetry as possible to the district it was desired to serve.

Out of these principles comes the rule that stream banks and the low-lying ground adjacent to them should be reserved.

The boundaries of a park should, if possible, extend far enough to include a complete natural landscape, so that it shall as far as possible appear of indefinite extent, while any features of special interest will amply excuse deviations from the general limits.



CHAP. XVIII.—PARK DEVELOPMENT.

The task here is to preserve and emphasise natural characteristics, though the entrances will demand formality, more particularly where they mark the transition from the definite and formal city streets. The park being developed to present the sharpest contrast to the artificiality of the city, the utmost caution should be observed in admitting buildings into its area. Shelters and restaurants are necessities, but they should be as inconspicuous as possible, and no other building should be admitted. Statuary also has no place in rural parks; zoological and botanical gardens are at variance with their purpose, but there is no reason why provision should not be made for them in conjunction with a public pleasure-ground.

The object of the park is to enable everyone to keep in touch with all the varied beauties and interests that Nature provides.

CHAP. XIX.—TEMPORARY AND OCCASIONAL DECORATION.

The purpose of this is to express the people's emotion when moved by a common impulse. It must be spontaneous, but a wise co-operation will enhance its effect. This co-operation may be secured by placing various sections under the direction of a number of artists, or by appointing one or more to prepare a scheme for the whole. The conditions vary so greatly that no general rules can be laid down. Will it be seen mainly at night or in the day-time, on land or on water, in a region of sunshine and abundant flowers, or where storms are so frequent that stands must have roofs and it will not be safe to plan the exposure of rich stuffs? Sometimes a temporary decoration may suggest a permanent improvement, but it should not deliberately simulate a permanent structure. It should, however, inspire the same earnest spirit, in which the whole question of the adjustment of the city to its needs ought to be regarded.

In making this summary I have refrained from comment on the author's views, and therefore feel impelled to add a brief note on the few points in which they seem open to doubt. In Chapter X, the general suggestion is that radial highways are superimposed on a preconceived system of street plotting. This only shows the domination of the rectangular ideal for the city plan in the U.S.A. The Washington plan suffers from this, in the unhappy effect resulting from the numerous intersections that occur at an acute angle, unduly breaking up the frontage lines of the main avenues (see plan).

The plan on which Detroit was rebuilt in 1806 displays a method superior to that of Washington, and it is the more to be regretted that it was not extended on the same lines beyond the area then plotted, the rest of the city being on the monotonous rectangular system.

In Chapter XV, the views expressed are in direct

opposition to those of Camillo Sitte, who considers that the "place" should be a closed-in area, a kind of open-air hall, while this work claims that its influence should extend as far as possible into the adjacent streets. The relative merits of these methods would form an interesting subject for consideration, and in certain cases it might even be found possible to reconcile both ideals, divergent as they appear.

Chapter XVIII, deals with park development almost entirely as a sociological problem, and even on this basis it appears to take rather a narrow point of view. Without embarking on a lengthy argument, one may ask why the desirability of Epping Forest should prevent our taking pleasure in Kensington Gardens, or why Paris should not possess a Versailles as well as a Fontainebleau.

H. V. LANCHESTER [F.]

INTERNATIONAL CONGRESS ON TUBERCULOSIS, WASHINGTON, 1908.

Brompton Hospital for Consumption; Heatherside Sanatorium at Frimley, Surrey.

A notable triumph for British medicine in relation to the treatment of consumption has been won at Washington by the essay of Drs. Arthur Latham and Pater-son, and for British hospital designing in connection therewith by the drawings and model of the Frimley Sanatorium designed by Mr. Edwin T. Hall. *The Times* of 28th October reported that practically all countries were represented by exhibits, and that the Brompton Hospital Sanatorium (Frimley) was considered worthy of the first prize at the Congress. Illustrations of the model and a short description of the building may be of interest to members, who may remember that at the Milan International Exhibition of 1906 the jury awarded Mr. Hall two gold medals for his designs of executed works.

The sanatorium consists of eight groups of buildings. Of these four are placed near the road; the remainder are shown on the model, and consist of—

- The patients' wards and the administration.
- Assembly hall, dining-rooms, kitchen, and stores.
- Medical officers' residence.
- Nurses' home.

The planning is entirely original, differing from the usual type of sanatorium in many particulars. The types of plan usually adopted for patients are either (a) that of a large hotel, like some well-known German institutions; (b) a military barrack of many stories, of which many examples exist on the Continent; or (c) a building with short centre and long wings set at a wide angle, the rooms facing about S.E. and S.W.; or, again, (d) simply long straight buildings with rooms facing south.

The many sanitary objections to *a* and *b* are at once evident, and for a large sanatorium *c* and *d* would be inconvenient by reason of the great length of the building. Frimley, it will be seen, differs from all of these.

The main building is designed for 100 patients, but is capable of holding more. The centre is a rectangular building, containing the main entrance, the consulting room, administrative offices, wards for observation cases, and day rooms. From this centre radiate four pavilions, so planned that every room faces S.S.E. or S.S.W.; every patient has a direct and uninterrupted view from his ward, and no ward is more than 55 yards from the centre.

Each pavilion is of two stories, and the whole form eight separate units for classification, each pair having its detached and centrally placed sanitary block, containing bathrooms, lavatories, w.c.'s, and sink-room. Two of the pavilions are connected with the centre by corridors of fire-resisting material, glazed on both sides, and having glass roofs for further protection against the spread of fire.

All ground-floor wards open directly on to tiled terraces, on which the beds can be wheeled out. All the largest wards on first floor have similar balconies.

The other public rooms are 100 feet to the north, and consist of the following:—

The assembly hall, which may be said to be all of glass above the sill level.

There are two dining-rooms, with windows or doors on all four sides: each has its service-room attached. These are close to the kitchen and scullery, which are internally of glazed bricks, and fitted with range, steam caldrons, &c. Adjacent are stores and servants' rooms. Covered ways connect this block with the medical officers' residence and the nurses' home, each a self-contained residence, with sitting-rooms and a separate bedroom for each, bathrooms, &c.

The exterior of all the buildings was designed so as to remove any idea of a hospital and to give the place the appearance of a large comfortable country home. The buildings are of red brick with stone dressings, red tile hung upper stories, and brown tile roofs. All woodwork is painted white.



View from north-west.



View from south-east.

BROMPTON HOSPITAL FOR CONSUMPTION
MODEL OF THE SANATORIUM AT FRIMLEY. MR. EDWIN T. HAUL ARCHTCT.

less permanent materials, forming not only the anatomy, but much of the clothing of his work. I mean in the design and disposition of such materials as wood, stone, metal, marble, tiles, glass, gesso, mosaic, &c.—the unity of all this expressing his own particular art. From this single partnership great things have been accomplished which are treasured as ideals by most students. Bearing on this, it hardly seems necessary to mention Wren, with his vigorous Renaissance, and the brothers Adam, with their refined rendering of a comparatively distinct phase of it. The fireplace, ceilings, and woodwork in Wren's and other men's work absorbed the best of their decorative aims, and in many cases the rooms in which they are placed almost need no other decoration. The client, if a collector of taste, further enriches the internal decoration by choice bronzes, pottery, inlay, pictures, &c. The combinations all increase the colour quality of each other, and of the room as a whole, and beyond this I venture to think the art of the decorator may lend additional interest should he be endowed with artistic individuality, a sense of style, the sentiment of colour, and the power of design. His details should be welcomed if they fall into line and harmony with their setting, and so increase the treasures of thought set up for the occupier.

As an early example of a choice of elements which go to make a scheme of decoration I may quote some fragments from the *Odyssey* of Homer, in which he speaks of the Palace of Alcinous and its threshold of bronze. To quote: "There was a gleam as it were of sun or moon through the high-roofed hall of Alcinous. Brazen were the walls, which ran this way and that, from the threshold to the inmost chamber, and round them was a frieze of blue, and golden were the doors. . . . Silver were the doorposts, that were set on the brazen threshold, and the hook of the door was of gold; on either side stood golden hounds, and within were seats ranged against the wall from the threshold even to the inmost chamber, and thereon were spread light coverings, finely woven, the handiwork of women. There were youths fashioned in gold, on firm-set bases, with flaming torches in their hands."

You have fortunately a member of this Institute who has shown with remarkable skill all these things in combination—I refer to Sir Lawrence Alma-Tadema, from whose work much may be learnt of the charm of sumptuous interiors, bejewelled as they are with marbles, metals, stuffs, painted decoration, and other accessories which go to make fine schemes of colour: details satisfactory in themselves and well fitted for good decoration, gathered from imperial Rome, or, one may say, from the charm left on Roman things by the genius of the captive Greeks. In this respect is included the selection of such elements as are taken from nature as being rightly decorative—the olive, the laurel, the pomegranate, the orange, the vine and its leafage, &c. A combination of these in forms of wreaths, festoons, &c., lends itself to the adornment of architecture—the curving festoons for horizontal shapes, the pendant for vertical shapes, and the circular wreath for telling expression at a distance. These particular fruits and plants have had a long domination in architecture, and go to prove that there is a limited number of things in nature that can be used with success. As architectural or decorative detail, there are of course many other plants in nature that may be used, but they require, shall I say, transfiguration or convention. In those mentioned, however, there is a precision of form and suitability needing no convention except in their grouping. In the way of a limited number of natural forms as decorative elements, the Egyptians have shown what can be done with the lotus, the cane, and binding bands of reeds. The festoon has become in careless hands a very baggy sort of detail, generally dubbed the "swag," a term which rightly indicates its debasement. For examples of the diversified and successful treatment of the wreath and festoon, there is no better master than Mantegna, who evidently raided his garden for the finest fruit and plants, arranged them in festoons, &c., and actually painted from them as models, not merely trusting to his memory of classic renderings.



FIG. 1—EXAMPLE OF ENTERRICHO'S WORK, SIENA CATHEDRAL.

It is now the fashion to paint nearly everything white. Working house-painters call it the draper's period. That it is admirable in many cases I admit; but its use on all occasions becomes extremely monotonous: it indicates a certain poverty of thought, and belongs to the transitory interest of things easily done. We might extend to colour, with its varying charms, a welcome in the same glad spirit with which we greet the violets and daffodils after winter snows.

Decoration is a language which appeals to the emotional side of life, and its expression should consist in interpretations of what we call charm or beauty. A great Frenchman's definition of beauty is that it is "the splendour of the true."

The full and sumptuous quality of colour in decoration seems to me the rarest and most difficult to attain, the predominance of primaries being essential: such schemes maintain their interest longest, mellowing rather than deteriorating in tone. We all know the sustained pleasure that is associated with Oriental tiles, pottery, rugs, &c., the works of Carpaccio, Giorgione, Bellini, Pinturichio, Botticelli, Benozzo Gozzoli, Signorelli, and many others who unite effulgence of colour with interlacing richness of detail.

It may appear that quoting pictures is wide of the mark, but as decoration the greatest triumphs in colour and design have been set within the compass of a frame: and with such examples as an incentive the standard of our work should reach higher. The study and value of pattern is of great importance, but pattern is not the crown of imagery. To me there seems at present no great movement in the higher kinds of decoration beyond what is known as ornamental design. The great Italians cherished high ideals, and used ornament only as an accessory to their dramatic and romantic conceptions, weaving out pictures that are decorative and full of the distinction of style. These achievements are now the stars of our pilgrimages.

Lord Leighton had aims and dreams in this respect. He has left us in his *Day of Triumph* one of the great decorative pictures of the world, containing as it does many of the finest elements of decoration in the procession of singing children, youths, and women, carrying the beautiful symbols of their faith through the olive groves, beyond which is seen the City of the Violet Crown set against the Attic sky. The landscape alone is a great decoration.

A magnificent example of wall decoration is to be seen in the Gallery of Battles at the Escorial: one wall, about 150 feet long and 15 feet high, is entirely covered with frescoes illustrating the mediæval battles of Spain. The armour, with its fine details of a beautiful craft, the forts, landscape, and towns, and other accessories, are given with such correctness of detail that you might imagine a Spanish Viollet-le-Duc had been the helpmate of the painter. In the Palace of Justice in Paris, in one of the corridors, may be seen a fine decorative wall painting, by Merson, illustrating the charity of the good king St. Louis, in which all accessories of mediæval armour and furniture are delightfully satisfactory to those who care for the archaeology of the period of the incident: yet, added to this, the work is imbued with and expresses the tender sentiment of the benediction of the young king to his poor.

To me the interlacing of details of objects having beautiful forms always indicates a continuous enthusiasm on the part of the decorator.

Puvis de Chavannes' wall paintings show wonderful decorative landscape harmonies, but are peopled with somewhat clumsily costumed classic figures. With every respect for his great accomplishments, I venture to think his works would have reached a higher water-mark had his draperies possessed some of the searching truth to nature and the fine style of the figures in the Parthenon frieze. If the details of archaeology influence you, it is well that they should show what is best in the particular period chosen. Even many of the great Italian masters in their classic figures seem to have painted their draperies from fragments of the antique rather than from the ever-varying forms of draperies folded round the living model.

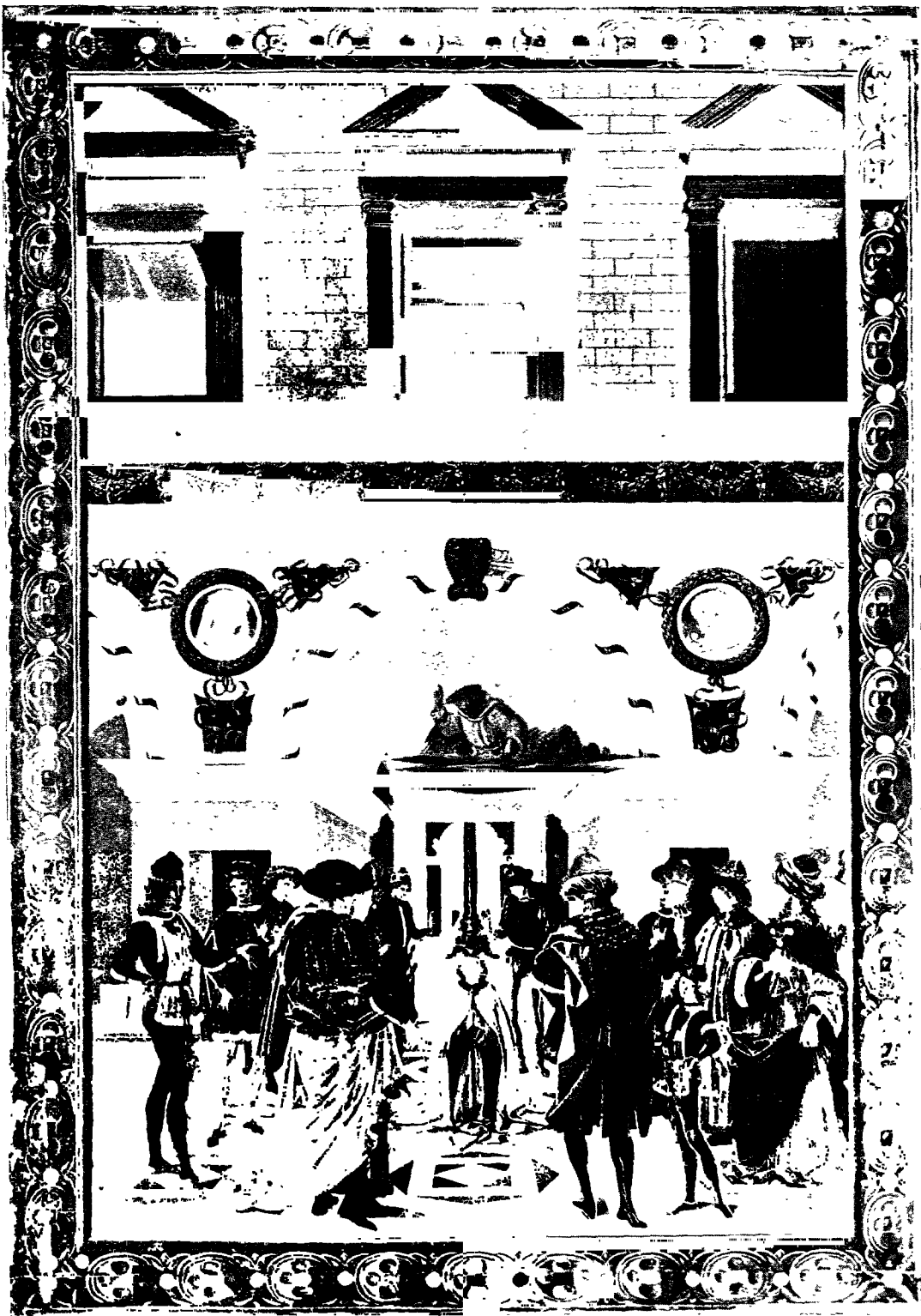


FIG. 2.—FROM A PAINTING BY FILIPPO DI LORENZO AT PERUGIA: SUBJECT, A MIRACLE OF ST. BERNARD.

Probably Chavannes was influenced or inspired by the frescoes of Benozzo Gozzoli in the Campo Santo of Pisa: these as a whole are more interesting in being more beguiled with detail of great variety.

There is a number of decorative painters whose work is intensely interesting, from Cimabue, Carpaccio, Giorgione, Ghirlandajo, Michael Angelo, Raphael, Tintoretto, Paul Veronese, Luini, Signorelli, Fra Angelico, Gaudenzio Ferrari, Solomi, Tiepolo, the artists of the Campo Santo of Pisa, and a host of others, down to our own times of Burne-Jones, Alfred Stevens, Watts, Richmond, Albert Moore, Burges, Morris, Bodley, Abbey, &c. But one evening is quite inadequate for such a subject. I may say, in passing, that the time does not seem ripe in England for decoration on this higher scale: what little is done trends rather to a technique that is a kind of swagger of the brush than to the effort to create pictorial decoration which shall be an embodiment of things beautiful. The sincerity and reverence of the primitives, though lame in technique from a modern point of view, have a more lasting interest.

PERMANENT MATERIALS.

Now there is a strong and commendable desire for the use of permanent decorative materials, but the choice of such materials requires great judgment, as there is a danger that they may become a permanent reproach. I am thinking of some apartments in a public building lined with painted tiles in the transient fashion of twenty-five years ago, which time has never blessed with mellowness: they still retain unchanged their brazen crudity.

Marble is a fine decorative material and gives an endless variety of colour as a palette, but there is danger in a redundant palette. It needs great reserve in the placing of its parts. There is a sort of impression that because the samples available are finely marked any combination must come right. This fallacy may be proved by some modern efforts. My impression is that the Byzantines, the Italians of several centuries, and the Moslems have reached success in their use of inlays of small areas on delicately veined grounds, especially when the inlaid forms are in sympathy with the architecture and are distributed to help its expression. By inlay I do not mean intazzia, but the working into your treatment small, shall I say, tiles of marble. I may mention the Church of S. Miniato, the church in the island of Torcella, the Church of S. Sophia in Constantinople, the Chapel of the Armenian Monastery, the Mosque of Aksa and the Shrine of Omar in Jerusalem, and many other examples.

The use of bronze on marble is a good element of decoration. In Rome and other parts of Italy are many examples of marble superimposed with bronze. A fine example of a bronze couch inlaid with silver may be seen in the Baths of Diocletian. Donatello's bronze panels set within marble frames are splendid examples of its use.

Copper is a beautiful metal to be used with discretion. Its fine qualities have been somewhat besmirched in recent times by numberless 'prentice hands, or rather by those who disdain apprenticeship. Wrought iron has many possibilities, as you all know.

GESSO.

Gesso in its proper distribution as an adjunct to schemes embracing other forms of decoration is of much value, as may be instanced in the altar-pieces by Carlo Crevelli, the wall decoration of Pinturricchio, the Italian painted coffers of the fifteenth century, and the Norfolk and other screens.

The Sienese have another method of using gesso in flat smooth faces, and on this face incisions and scratching of ornament are made. Fra Angelico has used this method on nimbi, and on the decoration of angels' wings. Raised and gilded forms in gesso on natural wood have been practised with great success by many workers, more especially by the Chinese and Japanese.



FIG. 3.—THE ASSOCIATION, BY DONATELLO, FLORENCE.

GILDING.

Gilding plays an important part in decoration. On whatever part you select to place it, I should say gild the whole of the relief, and avoid what is known as hatching or picking out.

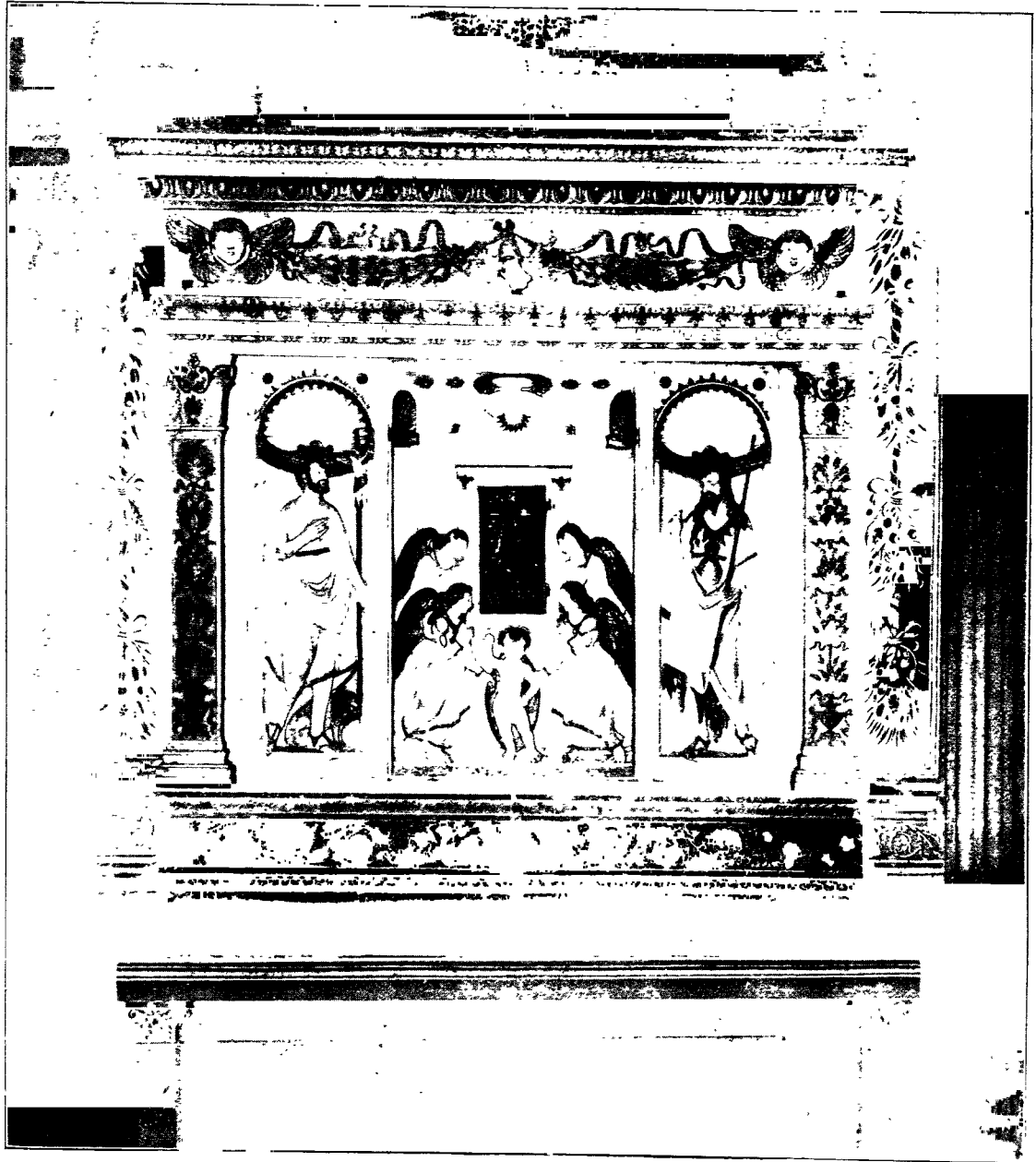


FIG. 1. SCULPTURE BY MINO DA FUSOLE AT FERRUGES.

Such a process only means a worse distortion of your modelled detail. To me the glitter of gold on the high lights is hardly as interesting as the gilded shadows where reflections are many and various. Generally the qualities of gold are best seen on modelled forms: perfectly flat

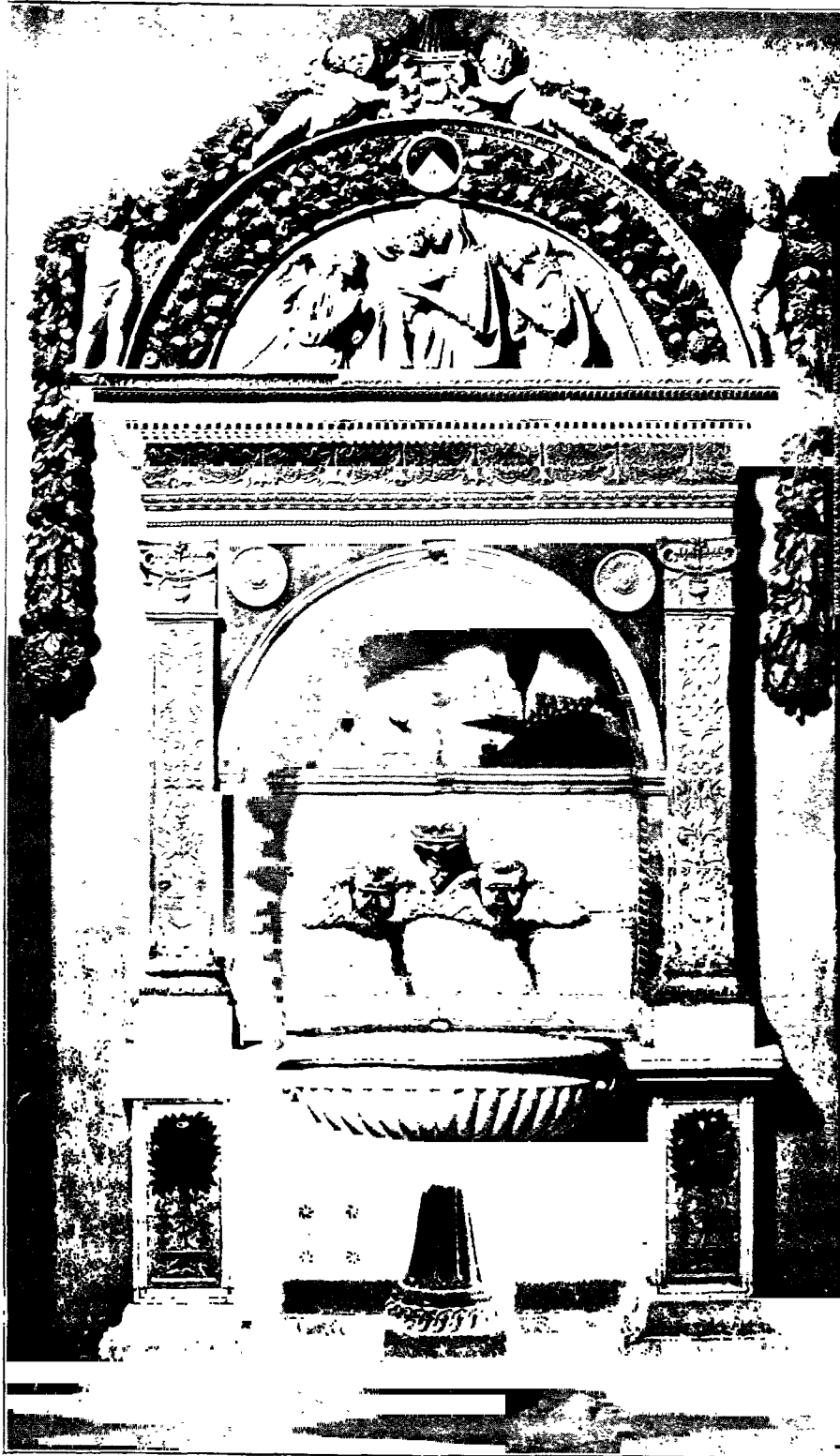


FIG. 5.—WORK OF DELLA ROBBIA AT FLORENCE.

surfaces do not always show its value. The private apartments of Isabella d'Este at Mantua are fine examples of the use of gold. The ceilings are beautifully modelled, and gilded all over with such variations in the gold as can be gained, by parts in mat, parts burnished, and parts lacquered. When all this has been done certain small incisive touches of blue or other colour in the deep sinkings enhance the whole effect. In one of the rooms the low relief enrichments are carried down the wall, forming a frieze, and gilded as on the ceiling. Below this the walls are in dull Italian walnut, thus forming a negative and increasing the sumptuousness of the gilded ceiling and frieze. There is a small room at Hampton Court with similar treatment, except that the frieze is occupied by a procession of painted figures.

Spain is rich in sumptuous examples of gilding—reredoses and screens, with much low and strong relief ornament, being altogether overlaid with gold. Notwithstanding the multiplicity of modelled detail, the whole effect is indescribably rich, yet big and stately in expression. In one of the vestries of the Cathedral of Toledo the walls are covered with richly coloured moresque tiles, and in later times on these have been placed strongly modelled arms of Castile and other provinces—big in area, relief, and detail, and covered with gold. The result is not only supremely rich, but delightfully harmonious.

For intensely interesting methods of treating gold by etching lacquers and painting shapes with semi-transparent colour over gold you may refer to the works of the earlier Italian schools in the National Gallery. There is a shimmer of gold through the pictures and continued on to the frames.

FRIEZES.

The frieze of a room, notwithstanding the numerous examples as a decoration (or desecration) which we see in modern times, still remains to me one of the best spaces for treatment and effect. It is the crown of your walls, and is a space sufficiently isolated not to interfere with other objects which are included in the ornament of the walls: and if its area is generous the decorator has an opportunity of showing his claim to that title. All pictures being below the scheme of decoration included in the frieze and cornice, the common practice of hanging pictures near the ceiling or building them up in pyramids is prevented. The haven in which an artist would have his work is on the line where the owner can examine it with comfort, and so enjoy whatever it holds. At the present time we see many examples of friezes showing so-called landscapes, seascapes, and incident fresh from the roller stridently repeating their crude irreverence to nature.

In regard to pictures more attention might be given to what would be a great additional means of decoration, that is, the design of the frames on more architectural lines. Think of the frames of Crevelli and other Italian masters. Objections have been made that deep friezes lessen the apparent height of a room. This can be obviated by vertical elements in the details of your design. Friezes modelled in low relief and coloured are very effective. It goes without saying that the design and technique should be of the best.

Is there not in many cases a charm and a sense of restfulness in rooms that are low? Our moods and pleasures vary in scale, so that height, light, and space are not always soothing. In the Rezzonico Palace occupied by the Brownings is a small suite of rooms that are low and shadowy, making a pleasant change from the large reception-rooms which form the greater part of the palace. The favourite living-room of Philip the Second in the Palace of the Escorial is an example of snugness and quaintness very soothing amongst the great apartments of that huge pile.

WALL COVERINGS.

Tapestry, woven textiles, embroideries, wall papers, stamped low relief wall coverings of leather and other materials, are very well known, and I believe their selection is made by

the ladies and their friends. In most cases the ornament they bear is designed as a 21" x 21" repeat pattern. The designer seems to have had no worries about architectural fitness when fixed on the wall spaces. Many direct reproductions are made from old Italian embroideries,

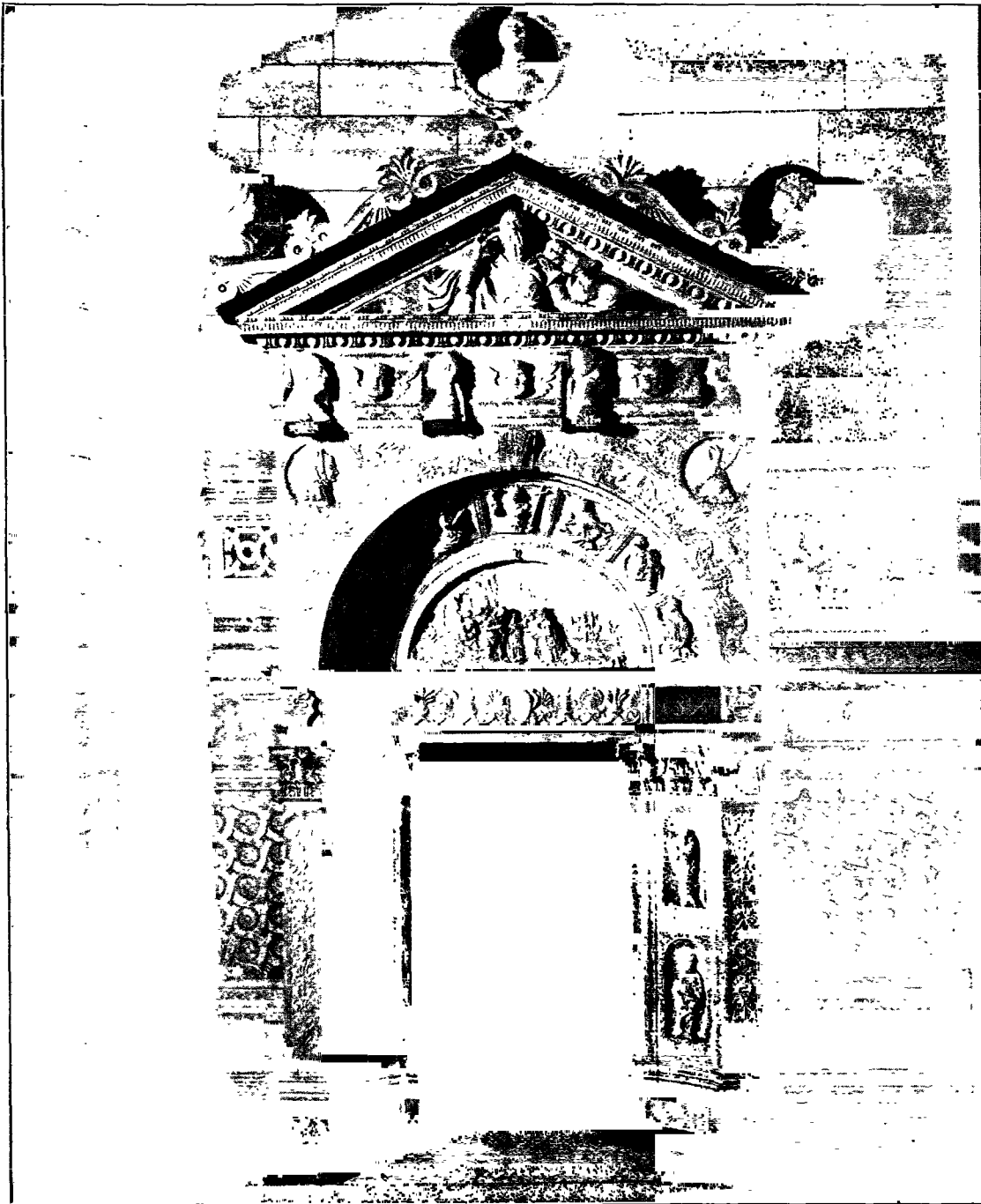


FIG. 6.—DOORWAY, BY G. A. OMODEO, CHIESA DI LAVA

Genoese stamped velvets, &c., which of course are very beautiful, only their largeness of pattern has not a wholesale fitness for every space. Of course, if you are the fortunate possessor of fine tapestry, and have suitable spaces, you hardly need worry about placing it rightly.

Ornament to tell at a distance should be large, in the areas of its parts, rather than deep or intense in colour, and for such purpose should lean to incisive geometrical forms. In designing for spaces think of the general flow of shapes needed to help their right expression and sympathy within the architectural lines of enclosures. Accentuate the best features of your design, following up the shapes to their full expression. Cultivate an instinct for the true use of vertical or horizontal lines and features, guard the purpose of the architect's moulding contours, and tread gingerly when attempting to pick out different members with separate tints. The purpose of a moulding's section is to gain the effect of certain incisive lines and certain soft half-tones in juxtaposition: this natural result has a beauty of its own that needs, as a rule, no tinkering. It is not design to fit in mere details of a style or period—it is *ingenuity*.

If single figures are painted within frames of architecture, they should amply fill the space enclosed. For circular spaces remember the Greek coinage. My sympathies lean strongly to the interlacy of detail so placed that the general broad colour scheme is not jeopardised but helped in quality and interest. Exact translations from nature need a new birth, to be restrained or winnowed through imagination: this process commonly goes under the title of convention: small-scale colour drawings only help you a little. Schemes of colour should be "offered up" on the walls: alterations, eliminations, and strengthening must follow on the actual work. Each coloured part should always have its proposed neighbours on its borders, and should include the ornament, as the colour of these added forms materially alters the ground colours. Generally, schemes should first be of gradations of one colour, opposite tints afterwards being carried through in forms of ornament with the idea of bejewelling the work. These are mere suggestions. You cannot lay down laws for colour. The grammar of "the styles" (which is generally accepted as those of the French Louis) is very well known, so that they can take care of themselves.

The collecting of rare and beautiful things in an apartment is a very commendable habit on the part of the occupier, but these miniature museums induce a feeling of nervousness that freedom of movement will end in breakage. This rather suggests to me that some apartment might be set aside for the best combined work of the architect and decorator—to be a work of art sufficient in itself to rank as a cabinet gem in its appeal to those who love colour and the forms in which it is displayed.

Lettering, if in good types and judiciously placed, may be regarded as really good ornament. Small areas of black have great value, and in lettering with its vertical and horizontal shapes you have a detail well suited for the purpose.

The present fashion to reproduce Wren's *naturalistic* carved-wood details becomes a little monotonous. I venture to think the vertical festoons repeated on many pilasters would not suffer from convention, so that the outlines should have a little more relation to the rigid vertical edges of the pilaster. Very often the ornament of straying outlines develops unsatisfactory background shapes, and these shapes seem to catch the eye unpleasantly. It is rather irreverent to speak thus of a great genius. Grinling Gibbons was evidently given a free hand in these details, which certainly are marvels as examples of craft in imitation of natural forms. In Wren's plaster ceilings his own qualities of restraint and the architectural fitness of ornament for its purpose are apparent. I feel nervous in speaking of these gods, but the brown monotony and multiplication of pinelling and carving are somewhat depressing in a colour sense.

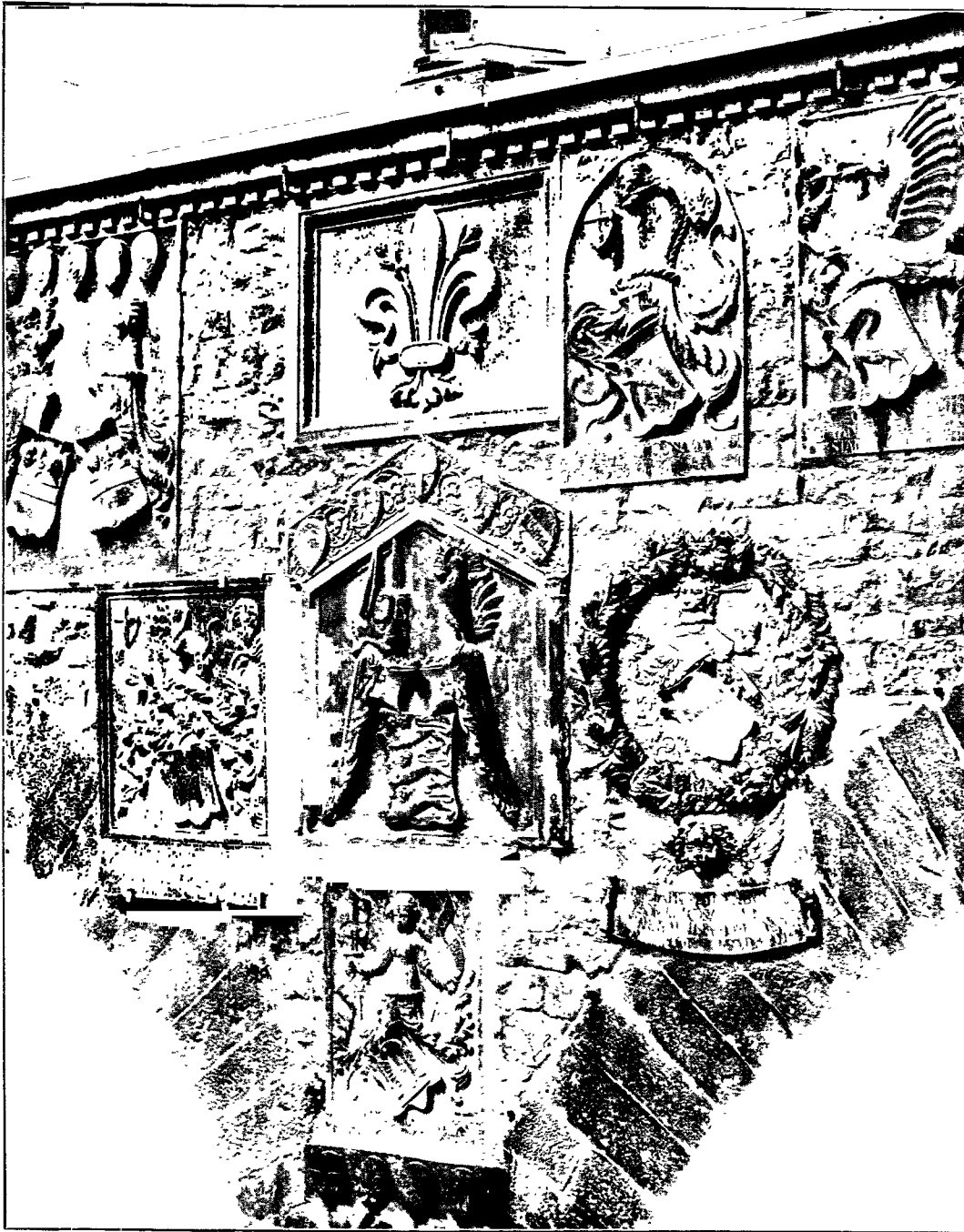
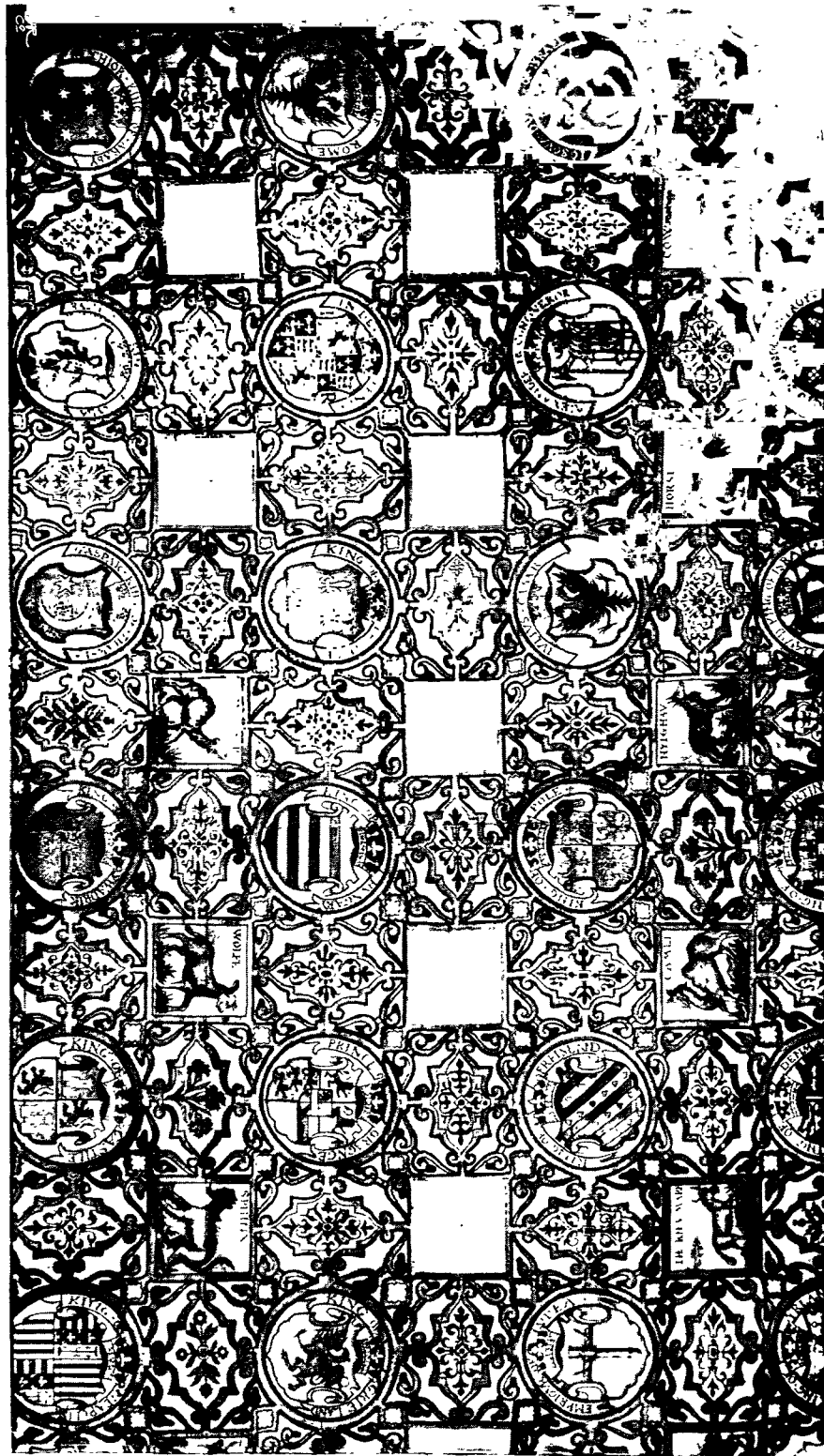


FIG. 7.—HERAUDRY OVER ARCADES, PALAZZO VECCHIO, FLORENCE.



THESE RESULTS ARE IN ACCORD WITH THE FINDINGS OF OTHER RESEARCHERS, WHO HAVE CONCLUDED THAT THE CONCENTRATION OF CHLORINE IN THE AIR IS A GOOD INDICATOR OF THE AMOUNT OF AIR POLLUTION. (From a photograph.)

HERALDRY.

Heraldry is an element which lends itself admirably as a means of adding the interest of colour to woodwork. To me many monotonous stretches of framing would be improved by certain groups of panels bearing colour. And what could you have better than heraldry? The areas of its quarterings and charges, although treated with pure colour, are so small and so largely covered with interesting drawing that such spaces are not unduly aggressive: they give a fillip of jewel-like colour when placed on the natural ground of the wood, and by no means mar the harmony of your scheme.

There is no better ground than natural wood for keeping almost any brilliant bits of colour applied in harmony of tone. The Japanese appear to have grasped the idea, for they seem to flip on any details of decoration in brilliant colours.

I have in my memory an example of decoration on wood (walnut, I believe), in the ceiling of the Church of La Badia in Florence, covering the whole of the nave, deeply coffered and richly moulded. The mouldings enclosing the square panels are overlaid with gold and gradations of sea green and blue ornament. The effect is solemn glowing, and altogether of a twilight richness. The expression of this can be received into the mind at once without effort, and you leave impressed with its solemnity and unity. The nave of the cathedral at Pisa is on similar lines. Some time ago, in a London church (built in the very early days of the Gothic revival), it was decided to apply some scheme of decoration. The roof was open-timbered, brown-black with repeated staining and varnishing. Some suggested that the whole thing should have three coats of paint: the cost of such a method would have been considerable, and the suggestion was not carried out. It was washed and a scheme of running bands of ornament was carried along the purlins on the main roof principles, and in some cases on the cleats over the common rafters. This was done, in such forms as might be used for inlay, in warm whites, low reds, and



11. 3.—DETAIL OF BRONZE ORNAMENT ON THE GIBELLIN GATES, BAPTISTERY, FLORENCE.

greens. This ornament looks from below like inlays of ivory holly, and is, I believe, quite satisfactory.

In Toledo there is a Moorish church with a magnificent timbered roof: the decoration is on the same lines, but whether the fretted ornament is in paint or inlay I cannot remember. The church belongs to the Government, who have erected a permanent scaffold so that visitors may examine the roof. Many fine fourteenth-century examples exist of the decoration of the joists of timber ceilings with judiciously distributed pattern, as in the Hotel Cluny and many houses on the Loire, and in some rooms in the Ducal Palace, Venice. The Norfolk and Suffolk screens give a fair idea of the style of decoration.

GLASS.

A valuable element of decoration is leaded and coloured glass, giving a great opportunity for interesting design without any dictation as to the trend of its treatment. I may mention some notable and varied examples of its use in domestic architecture which may be seen in the Cluny Museum in Paris. Generally they consist of small panels of heraldry, or subjects in brilliant tints and much detail of delicate painting, suspended as it were on simple shaped quarries of clear glass and backed by the foliage and sky. The lozenges of jewels placed against nature's schemes of colour gain a unity of effect which is always deeply interesting. As a rule we use heraldry in these small centre panels. Well, why not vary the heraldic treatment, and in some cases reserve such spaces for more precious art—art that shall be a definite illustration of some legend, or your own imagery in the field of design?

Apart from domestic work, there is the larger field of ecclesiastical glass, a large subject on which I do not propose to enter.

SCULPTURE.

Coloured sculpture is very interesting and can be used with good results, not by painting in solid oil colour, but by glazing in transparent tints and wiping off the high lights, the surface being first covered with shellac to give a hard skin and stop absorption. I need hardly say that the handling of the colour is not a merely mechanical process. The executant must have the instincts of an artist. I believe the finest examples of coloured sculpture are by Gaudenzio Ferrari and Della Robbia.

PAINTER'S WORK.

The much abused mid-Victorian age in matters of house painting was really the best period. The greatest possible pains was taken by workmen of skill, who could, with very few exceptions, produce the indentures of apprenticeship to their craft: now an indentured apprentice is a curiosity. Then, it was no uncommon thing for good men to be employed for twelve months or more on one country house: now, they might almost avail themselves of a cheap monthly return ticket. In such houses may be found really beautiful technical house painting, where coats of paint and careful rubbing down was not spared: all the delicate members of moulded work and ornament were preserved in all their sharpness. The work was not from the first loaded with a few thick coats, which destroy the sharpness of detail, but was repeatedly treated with thinner fluid.

In using distemper the best way is to give the ground two coats of thin paint and then cover with distemper. Should this distemper require redoing in future years, it is easy to wash it off and recoat, so none of the detail is lost. It may add a little to the expense in the first place, but it is really cheaper in the end. By distemper one does not mean the so-called washable distempers so prevalent now. If such is used repeatedly, the sharp character of relief work disappears. When dry it cannot be washed off. Of course this repeated blurring

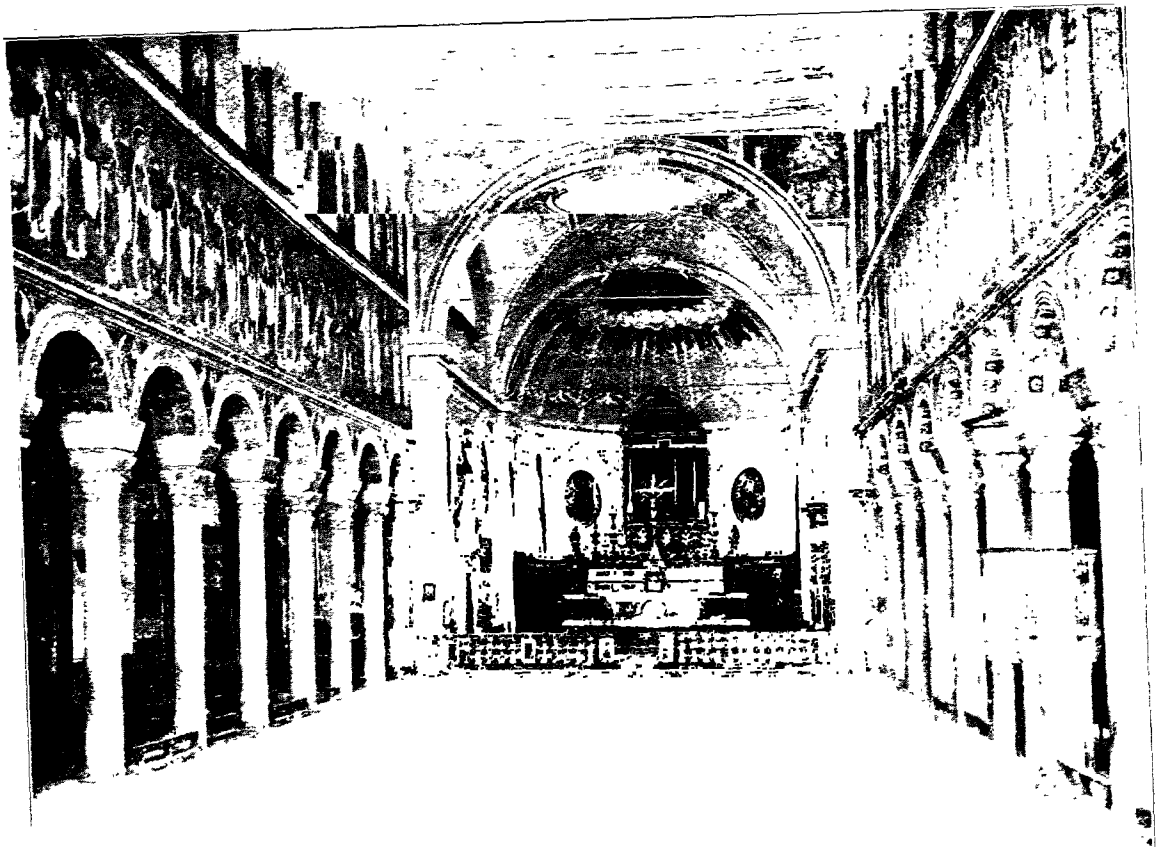


FIG. 10.—MARBLE FACING, S. MARK'S, VENICE

of detail might excite the admiration of the modern impressionist. I think we can hardly deny that white lead forms the best basis for all paint; but let us be certain that it is free from adulteration. The same applies to other pigments. White lead, though not such a pure white as zinc oxide, has more elasticity. No good work can be done unless the best materials of their respective kinds are used. Wall papers that are hand-printed are the best, and should in every case be laid on a good lining paper.

ARCHITECTURE.

To me there seem great possibilities for architecture set within architecture as an adjunct in decoration. Architecture is really the basis and beginning of design, and that



THE VOICES IN THE CHURCH OF ST. ANDREW, LONDON

which it has accomplished in the creation of forms, contours, disposition of vertical and horizontal lines, cannot be overlooked by those who set out to give us a great pictorial or decorative composition. I am not referring to the remarkable examples of painted perspective by the Italians, who, in their zeal for the new discovery, forget that ingenuity did not make great art.

When speaking of architecture within architecture I am thinking of the beauty and fitness of many cities (if painted with a decorator's instinct) to fill with success rectangular

spaces, either vertical or horizontal, as may be directed by the architect. These cities as subjects require careful selection. I may mention some such as are decorative in themselves :—Jerusalem, from the hill of Scopus behind the Mount of Olives : Athens, from Lycabettus set against the Saronic Gulf and Peloponnesian mountains : or looking east, with the violet mystery of Hymettus behind : the city of Florence from S. Miniato : Milan set within the Lombard plain from Bergamo : Saragossa, with the steely blue of the Pyrenees behind, as seen from the south.

This list might be extended from the cities of our own country, beginning with London, and of France and others. The point of sight should not be near, so that due justice would be given to the harmonies of the atmosphere in which they are enfolded. Accuracy of detail is important, but not so much as a grasp of the fine contours and colour gradations in a big sort of way.

Landscape has great decorative possibilities. There is at present a tendency to use so-called classic landscapes (made at home) in which hard strongly outlined rolling clouds, doubtful classic buildings, and large trees are set in vistas of brown tones only. A real classic landscape is a great revelation of its fitness for decoration. In the land where classic art had its birth very little rearrangement is needed. There in itself you find composition tones and colour harmonies. Planes and values are all in order, making a refulgent yet sober composition. The brown treatment is an indifferent substitute for the iridescent radiance of this magic land.

It often occurs to me that there is opportunity now for a great renaissance in decorative design. Donatello, Mino da Fiesole, and other Italians achieved by their genius a personal and perfect culmination from the study of the rather limited Roman remains that were within reach. They were essentially modern, and were



FIG. 12. FROM WORKING CARTOON FOR A SECTORED STAINED GLASS WINDOW, THIRINGHAM UNIVERSITY.



FIG. 13—WAITING FOR THE THIRD ACT.
 (The scene is the interior of the house of the Duke of Devonshire.)

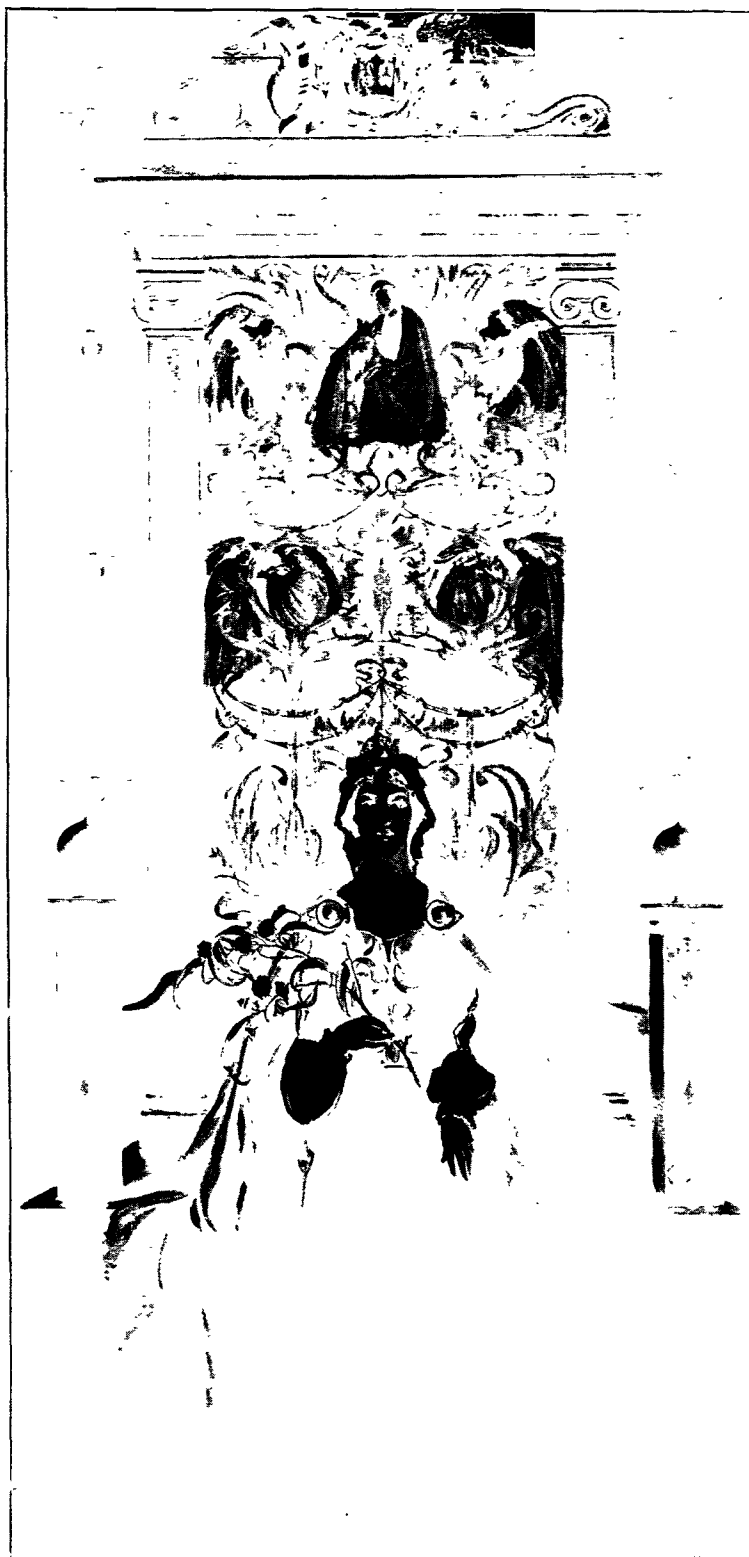


FIG. 11.—A PRINCESS.

From a painting by the Author in the collection of Mr. F. Slingsby, architect.

influenced by the fashion of the moment and ready to embody any new thought for the glorification of their work. Now, in the twentieth century, our treasures of Greek art are largely multiplied and easily available in the British Museum, and in the incomparable Pantheon, frieze, the decorative bronze ornaments, coins, and hundreds of other jewels of art are shown the best qualities of dignity and restraint in design for students who have the fervour and ambition to recreate a style that shall be on a par with, yet quite distinct from, the fourteenth-century Italians, and of a freshness and interest that cannot be evolved from a period of decadence.

It is not for me to say what you should or should not do, or to lay down laws for the treatment of any apartment, as the dimensions, the scheme of lighting, and the architecture of its construction must govern the nature of your additions. My impression is that design has its birth from vague memories of beautiful things seen; if careful notes are made for reference in the actual work of creation the operation means death to the imagination.

Ornament and the spaces for its disposition need new thoughts and careful consideration as to the disposition of lines and areas, of the separate details of your ornament, and the amount and variety of decoration already achieved by the architect in the use of mouldings, modelled cornices, &c. The battle can only be fought out on the walls or spaces which the architect allots to the decorator for treatment. To this I need hardly add that there is no royal road to the creation of any work of art: consequently, such creations cannot grow into shape without much tribulation and strained endeavour. If you assume the position of an idealist, do not forget that if beauty shall nestle and find a home, there will come along some few who will appraise its real value. As in architecture, you all know there is no rule by which can be imparted that divine something, leaving on it the seal of distinction and permanent charm which is so closely associated with some of the best work of the past.

It is the function of the decorator to be the "magician of the moment," yet working in harmony with the architect. He should reverence the accomplished things of our predecessors, and be guided by work of a period in its fruition, and yet try a little melody of his own. Decoration is not a necessity, yet it appeals to those emotions which add a charm to the practical side of things, and for this reason may be accounted a real asset to the happiness of life.

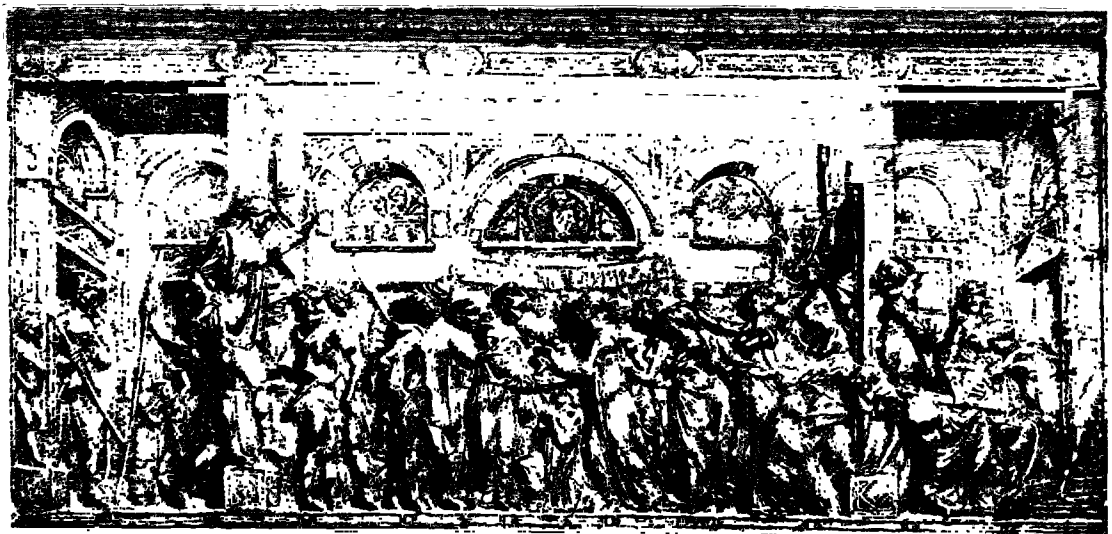


FIG. 1.—Frieze of the Pantheon, Rome.

DISCUSSION.

MR. ERNEST GEORGE, *President*, in the Chair.

MR. R. ANNING BELL, who rose at the instance of the President, said that Mr. Spence had given them a most interesting sketch of the history of decorative art in modern times, but the range was so extensive that it was difficult to make any general criticism on it. He should like to have heard a little more about the elements of decorative design—an art which he attempted to practise himself. A study of the ancient work was one of their greatest incentives, but there were certain general principles which might help them too. One matter that they were all agreed upon as most essential to a good design was the element of scale. Architects complained that sculptors and painters had no idea of scale. Was there any possible canon for scale? No two men seemed to agree as to what scale was in relation to anything else. If a sculptor or painter was employed to design work for a window or a frieze, he found that one architect's idea of scale was quite different from that of another. And that put him in a great difficulty. After working with one architect, and having a great deal of trouble and discussion before the proper scale of height and proportion could be agreed upon, he found that the next architect he had to work with had quite another notion of the matter, and just as many reasons for the notion as the first man had for his. Was it anything more than fancy or personal predilection? It was very hard to find any common ground. Architects, he thought, should take up and thresh out the whole subject, and find some sort of reason for scale. Was it relative to distance—to the height above the ground, to the distance that the spectator was from the plane at which the object was placed, or from other objects on other planes—the size of windows, mouldings, &c.? There were all sorts of things to be considered. Some standard as regards scale might be set that all architects would agree was good, so that the painter or sculptor should have some sort of basis to work upon. One never got the same proportions and conditions to work on twice. A painter's or a sculptor's taste naturally tended to give his work at least its due importance in the scheme; whereas an architect's notion often seemed to be that the painting or sculpture was not of so much importance, but was merely a piece of ornamentation to set off something else. If something approaching a standard could be agreed upon, they should all be a little happier, and should not at least have to make so many futile sketches at the beginning of a work.

PROFESSOR REGINALD BLOMFIELD, A.R.A., said that the Paper had been full of most interesting detail, which they would all take to heart and profit by. It was so full of detail, indeed, that he (the speaker) had lost his way in it several times. Mr. Spence had set so many hares running that it was difficult to know which to tack on to.

He would endeavour, however, to recall one or two points on perhaps minor matters. One of these was white paint. Architects were very fond of white paint—perhaps, as Mr. Spence had kindly suggested, because it was the refuge of the destitute; they knew they were safe with white paint—and so, in fact, they were. White paint, however, was often dictated to architects because of the uncomfortable state of the arts and of the patrons of the arts. Patrons of the arts wanted panel pictures and nice little knickknacks isolated, and there was no doubt that white paint set off these things wonderfully well; so that it was not entirely the fault of the architect. Apart from that, however, white paint formed a most admirable background for bits of colour. Then Mr. Spence thought brown panelling rather dull and triste, and not as satisfactory as it might be; but he did not take into account what was in the mind of a man like Wren, for instance, when he employed brown panelling and white plaster—that these were to be taken as parts of a great scheme to be judged as a whole. The architect was a very modest man: he always kept himself in the background as much as possible, and put in these unobtrusive touches as a set-off to the work of his brethren the painters and sculptors. Mr. Spence had mentioned Wren with great admiration; he might also have mentioned his predecessor, Inigo Jones, who was a master in the assemblage, organisation, and direction of the arts. This could be seen in the double cube room at Wilton, with its wonderful example of decoration of the time of Charles I., controlled by a great English architect. Coming to a point of technical criticism, Mr. Spence had quoted the palace of Alcinoüs and the *Odyssey*. The *Odyssey* was, of course, a splendid poem and delightful reading; but they ought not to go in the slightest degree by what poets and literary men said about the arts. It was one of the most engrained fallacies of English culture to imagine that because a poet had written a wonderful description of a picture, or statue, or piece of sculpture, the artist had then and there to interpret it literally. But a distinction was laid down years ago that the poet had to get his effect by consecutive impacts, and the artist had to get his by a momentary impact—when, for example, a person entered a room, the effect came through the eyes at once, whereas in reading a poem the effect was gradual and cumulative. That was an important distinction to bear in mind nowadays. Critics were fond of criticising painting, sculpture, and architecture from the point of view of literature, this was a great mistake, and artists should not encourage it by quoting the poets in regard to the arts. There was a much larger question than that—at any rate for architects—i.e. what was their relation in these matters to the sister arts. As many present might

recollect—it was his own experience some years ago—they used to think they should save architecture by endeavouring to make themselves painters and sculptors and metal-workers and various other things. That, however, had proved itself to be the wrong tack: they did not make themselves good craftsmen, and had ceased to be architects. The question was, how were they going to shape towards architecture, and what exactly was their relation to the sister arts in these matters? It was not, he thought, for the architect to take a personal part as an executant. Architects had to try to think out the relations of “the arts,” and endeavour, to the best of their ability, to help their painter or sculptor colleagues on these many technical points, such, for instance, as the interesting point Mr. Anning Bell had raised with regard to scale. Sitting at the Council dinner that evening next his friend Professor Gerald Moira, he had asked him what he would do in this matter. Professor Moira had answered with extreme precision, “For God’s sake give us elbow-room!” He thought that hit the nail on the head. Let architects give the decorating artist plain walls, good proportions, and simple work—room in which to turn round and do credit to himself and to the architect. Then there was the important question of scale—that tremendous conundrum propounded by Mr. Anning Bell. Mr. Bell had hit on a subject which he (the speaker) was not in the least competent to answer, and which nobody ever had answered. There were books—he had come across a whole catalogue of them—written on canons of proportion; but he was afraid that for their purposes these were beside the mark. Architects had their own methods and adopted them; but in the abstract he believed they all came to the conclusion that it was impossible to lay down any one abstract ideal of scale to fit everything. Mr. Bell said: “One man says my scale is all right, and another says that it is all wrong. What am I to do?” That perhaps was scarcely the way to look at it. An architect’s design ought to be an organic conception in which each part fitted into the place which he had seen from the start and realised. Then, however beautiful the work may be which is produced by the painter or sculptor who is good enough to help them, the architect is entitled to say “That upsets the scale of my building in the sense that it strikes a wrong note—it is altogether bigger or smaller in conception than I had in my mind when I was designing my building.” Each part, he thought, should fall into its place as an element of one great organic composition. It was in this sense that the architect’s work was architectonic, and it was all-important that this view should govern their attitude towards the arts.

Mr. GEORGE HUBBARD, F.S.A. [F.], referring to the question of white paint, said that they all instinctively felt that white paint was to be commended, but perhaps they did not all appreciate why white paint appealed to them. To his mind white

paint should always be largely used, because white was the natural standard by which any colour could be measured. The juxtaposition of colours created confusion in the mind, for the comparative value of colours could not be measured as against each other, but only in so far as they departed from white. White ceilings, doors, and architraves kept before the eye the standard by which the true value of wall-colour decorations could be measured.

PROFESSOR GERALD MOIRA, referring to the matter of scale, said he thought Mr. Anning Bell’s argument a little unnecessary, because the decorator ought to realise to a certain extent the scale of a building even from the drawings provided by the architect. Then Mr. Spence had talked about isolated pieces. Some of these were very fine—Della Robbia’s pieces, for instance, were extremely fine—but how did they go with their surroundings? It was a little unfortunate that they were put into places which were built much before the time; but to-day they had to consider a building that was built to-day, and decorated to-day, and practically finished to-day. We lived in a motor-car period, when a thing was commenced and carried through at once and was not gradually developed. Therefore we had to design our figure-decoration, or whatever it was, to fit the building, and to be part and parcel of it. That was a point they ought very seriously to consider.

Mr. J. D. CRACE [H.A.], proposed a vote of thanks to Mr. Spence for bringing before them a very interesting subject and for the many charming illustrations he had shown them. He thought that the discussion so far had drifted a great distance from what they had started with—viz. decoration in the sense of colour. He could not understand why it was that all the Papers he had heard on the subject of colour decoration in that room always seemed, instead of adhering to the question of what was excellent for the building, to drift away into side issues—as to how details may be treated, or as to the various methods and processes and dodges of executing decorative work in various materials. It appeared to him that what was wanted more than anything else in that room was a discussion as to what were the things that made for successful decoration in the sense of doing good to the building. Mr. Spence had mentioned at one point that certain decoration had been executed in spaces set apart for it by the architect. He could not imagine anything more absolutely ruinous to the effect of a building than to have individual spaces set apart for decoration in various parts of the building, or in one part of the building, and all the rest held in reserve. Mr. Spence had mentioned many painters—Italian painters principally—whose work was decorative, and had shown some of their work on the screen, of course without the aid of colour. It was quite true that those paintings were decorative in themselves, but they did not constitute decoration, and Mr. Spence had left out of account altogether that those paintings were,

almost without exception, in settings which meant decoration—that is to say, they constituted the picture, the pictorial decoration part of the building—not only the accessories in the painting itself, but the surrounding border or ornamentation which connected it with the building. He (Mr. Crace) had brought round a few Arundel prints and sketches the better to show what he meant by welding the paintings to the building. Take, for example, Pinturicchio, a master of decoration. His beautiful paintings in the Library of the Cathedral at Siena had been written about over and over again, but very few people took the trouble to notice how they were part of the whole building. The pilasters and everything seen in the illustration of one of his pictures were on the flat: it was all part of the decoration. And what was the result? The blue pilasters were not put in because the artist had a fancy for blue at that point, but because they led up to the blue-and-gold in the ceiling. Another of the prints showed the position of that very decorative painting in a space which was conducted up into the roof, with a most extraordinarily able command of colour, to make an entire decoration of it—to decorate the building, not to put a decorative picture into a space “allotted by the architect.” It was not allotting by the architect that was really wanted in decoration. The architect should decide beforehand what sort of decoration he wanted, and then decorate the building, not decorate a particular space in the building. Another subject touched upon was the architectural accessories in painting. These accessories performed a most interesting and valuable function in connecting the painting with the surrounding structure. The representation of buildings and portions of buildings shown in the picture had the effect of welding the picture into the building, which was a most important function. In one of the examples shown the pilasters and arches really connected the picture with the building, and gave the picture the effect of being intimately allied with the structural part of the building. Paul Veronese painted wonderful pictures of a decorative kind, but he did not just stick his pictures into a white space. One speaker spoke of the value of white as showing off colour. That was just what the old men avoided: they did not want their colour to stand alone surrounded by white; that was not the method of Paul Veronese: his pictures were not merely set into a frame, but all the spaces between were filled in with coloured or other ornament. Take another example with some of the beautiful little subjects by Ghirlandajo—they were all framed together, and the space between was filled in with gold and grisaille ornament. Take Titian: he did not go and plant his picture into a white ceiling, and put a gold moulding round it, and say how well the white showed up the colour. He made the whole thing part of the picture. It was that tendency to isolate fragments in decoration that was the ruin of the decorative idea. A picture might be decorative in itself, but if it was

not in some way affianced to the building it would never be really a decoration. That would be found in numberless instances by artists of all the most interesting decorative periods. Take the whole of the Italian decorations from the fourteenth century on to the end of the sixteenth, and it would be found that the painters invariably put their decorative pictures into decoration as a whole: even Tintoretto, who painted on such an enormous scale, and with such boldness, his finest work of that kind in the School of San Rocco was surrounded by the most elaborate ornamental decoration and most carefully adjusted colour—no white left to show off the beauty of the colour. He entirely differed from that opinion of white. First of all, extensive white was very bad for the eyes, because it was playing upon the same optic nerves all the time it was visible: whereas with a well-adjusted harmony of colours the eye was constantly relieved: the nerves susceptible of one colour were relieved directly the eye passed to another. There was, however, one great explanation of the popularity of white, viz. that it was the last refuge for the destitute.

THE PRESIDENT said they thanked Mr. Spence heartily for his very interesting Paper, which had been so full of suggestion. He felt with Mr. Crace that white was resorted to because it was the simplest and cheapest form of treatment open to them, and with it we avoid anything that was very vicious. It is in fact avoiding the problem of decoration: but to have cabinets of pictures and other things picked out by a white surrounding was very trying. He always preferred lower tones as a rich and harmonious background.

Mr. SPENCE, in reply, said that Mr. Crace had slightly misunderstood him about spaces. It seemed to him that the treatment of an interior was very much like the painting of a picture: one must have the whole thing set up, so as to put the colours on, and then to accentuate or eliminate just as was felt consistent with the scheme of decoration. His feeling was that the pictures placed in these spaces should be decorative in themselves; they should have the elements of decoration—that is to say, the feeling for style. That was a very difficult thing to explain: but some pictures had that fine and indescribable character of distinction. He did not mean in his Paper that the architect should allot a settled number of geometrical shapes, but that he might allot the decorating artist an interior to do the best he could with—which would not interfere with the architect's mouldings or with his scheme of permanent material. The work should be carried out very much in the same way that Phil May worked on his drawings: he accentuated and eliminated until he got the drawing perfect in expression. But surely there was no scheme of decoration that could be laid down perfectly before the work was begun. One must have the actual spaces to work upon, so that one could strengthen, and add colour, and do all kinds of things, so as to get it to unite and come together.



REVIEWS.

THE MISTRESS ART.

The Mistress Art. By Ronald Blomfield, A.R.A., M.A., F.S.A., Hon. Fellow of Exeter College, Oxford, Professor of Architecture, Royal Academy, Editor of "A History of Renaissance Architecture in England," "Studies in Architecture," "The Formal Garden in England." So. Lond., 1908. Price 5s. net. T. C. and A. Arnold.

Photographs of beautiful buildings have an eloquence which tickles the ears of learned and unlearned alike: sumptuous publications in which the illustrations are adorned with dainty frills of letterpress have a genuine value of their own: still one is very ready to welcome a work on architecture, such as Mr. Blomfield's book is, which, beyond being unexceptionably got up, makes no concession to the eye, but appeals purely to the intelligence, and that with a force which comes of clear thinking and definite pronouncements.

Mr. Clausen in his Academy Lectures showed that he had an individual outlook on his art, that there was something which he felt wanted explaining, that he had, in fact, done his art the compliment of thinking about it while he practised it. Mr. Blomfield's lectures belong to the same category. He has thought, and thought clearly, and he has, as one would expect, the courage of his opinions. More than this, he brings the open mind to the consideration of, I had nearly said, every phase of his art, but I must except Gothic; he does indeed do a little conventional lip-service to the mediæval stock, but when he has uttered the words "Modern Gothic" he appears to feel that he has fired the heaviest shot in his locker. The why and wherefore, putting aside personal prejudice, is not quite clear. Gothic has its limitations, and must be very dull of apprehension if it has not learnt its place by now, but every Neo-Classic building is not good, nor is every modern Gothic building Strawberry Hill. The fact remains that Batty Langley, Capability Brown, and the chastened exponents of Gothic to-day are Mr. Blomfield's bugbears. On the other hand he does not mind finding good qualities in quarters where others resolutely shut their eyes to them. He would not admit, for in-

stance, that Vanbrugh was the greatest architect in the now hackneyed lines which the mere whisper of his name inevitably brings up, nor is he contented to dismiss decadent art out of hand without looking to see for himself whether it is really as bad as it sounds. There is beauty and decay, and Mr. Blomfield finds stray passages of the beautiful in decadence. Architecture, as we all know, was once upon a time the "Mistress Art," as Mr. Blomfield calls it, but his title is not there merely to hit the public in the eye, but because it is actually the text of his discourses, and the student is warned that he must fit himself by his own right bearing towards his art and by the completeness of his equipment to substantiate its claim to pre-eminence. On this subject the writer has many reasonable things to say, with which to-day few will quarrel, so completely, in the sphere of architecture, do the heresies of one generation seem to become the established religion of the next; glamour of associations, glamour of age, perfect conformity to the canons of design—all these and other qualities like them the student is told ruthlessly to tear away from the building which he is analysing—and his education should accomplish in this way and not through books—till it stands without a shred of clothing but its own beauty. This is a test which many old buildings will not stand, and the middle-aged man feels a mild shock when this is brought home to him, so completely convinced was he in his early years that within limits the early builders were impeccable. There was a time, to wit the period when at the sound of Ruskin's silver trumpet Neo-Classic walls reeled and fell, when art and morality were held to be closely bound together. Now we are told that morality has been divorced *a mouse of them*, or rather that the marriage was never other than a fond imagination, and that art cannot be stated in terms of morality. But is it so certain that there is no connection at all between the two? Take the case of a sister art to which Mr. Blomfield is never tired of referring—music. Does not the orchestral accompaniment to the Venusberg Episodes usher us in a wonderful way into a world where guilty pleasure sits enthroned? and do not

certain architectural forms make an appeal, far less direct and forcible of course, to the lower side of our nature? This is not to make the old mistake which would look for a driver as fit as his oxen, or to say that austere designing connotes austerity in the designer, or unregulated imaginings the debauchee: still there are buildings which one might imagine a Milton had fathered, and others which smack of the erotic poets.

Mr. Blomfield writes in an interesting way of the gradual intrusion of temperament into an art which for thousands of years had been hieratic, impersonal, a heritage which was received whole and handed down whole, modified by imperceptible changes, by the mere passing of ages, themselves a symbol of permanence, varied neither by individuals nor even consciously by peoples. It was the sense of the impersonal note in early architecture which, fifty years ago, led to the view, held by many, that, just so far as the individual hand was shown in a building, to that extent the building was debased. It is true that architecture is probably never fuller of personal cranks than it is in periods of decadence: but this was, as Mr. Blomfield says, individuality of detail rather than of architectural forms, and the individuality of the artist who has come to his own, the master who triumphantly realises in his work a great and compelling personality, an Alberti, a Peruzzi, was not to come till the Renaissance had reached maturity: If personal expression of this sort is a sin against morals, so much the worse for morals.

The third and fourth lectures deal respectively with the question whether or not the architect is to be the craftsman, and with the spheres and limitations of the arts. In the first case Mr. Blomfield decides, almost *a contre-cœur*, but with no qualification whatever, that the architect is not, and, must not be, the master craftsman, but the master of the craftsmen. He must not labour at an oar if he is responsible for the safe passage of the craft through the rapids, but must hold the tiller-ropes and keep a watchful and undistracted eye on his goal. The master is seen at work, as Mr. Blomfield thinks, at St. Paul's, and we may gauge the salutary nature of the influence by comparing Grinling Gibbons's work there with what we know of it elsewhere where his hands were certainly free.

Of Plato, of Aristotle, and Lessing's "Laokoon," and of the fallacies exploded in that book, Mr. Blomfield writes with learning. Till Lessing's time, even the most intelligent of critics, like Diderot, mixed up the subject matter of poetry, painting, sculpture, and even the stage, in a hope-

less way. It would be too much to say that this confusion is quite unknown even now, programme-music is a case in point: but at least most trained artists will be at one with the writer when he concludes that "the vital touchstone of any art is that what it does can only be done by that one particular art."

With the second half of the book, which is devoted to a consideration of the "grand manner" in architecture as exemplified in Egypt, in Greece, at Pergamos, in Rome, and in France, we can only deal very summarily. The grand manner is more than once defined: "Scale, orderly distribution, a certain abstract and impersonal simplicity of treatment which relies on its fidelity to large conceptions rather than on wealth and intricacy of detail," are the essentials, and "scale" of course does not mean "size," since Newgate, now unhappily destroyed, was beyond all contradiction an exemplar of all the fundamental qualities here posited. In these concluding lectures the writer's appreciative tolerance and liberality are very apparent: whether it be Egypt, with its appeal to our sense of awe; Greece, with its appeal to our sensibility to beauty; Pergamos, the earliest home of systematised distribution and arrangement of masses, of planning regarded not as a single problem but as part of a comprehensive scheme; Rome, compelling materials to her will, yoking nature itself in her passion for dignity, for magnificence, for all that goes to the making of a world-capital (what would Trajan have thought of the Strand improvement?); France, with her exquisite and instructive feeling for what is right and congruous, her logical, orderly intelligence, heir in part to the qualities of both Greece and Rome—in each and all of these Mr. Blomfield finds examples of that masterly handling which, however varied its manifestations, is fundamentally one—examples for students of art to absorb and reproduce, for those in whose power lies the making or marring of our cities to take to heart.

Mr. Blomfield always writes well, and in a special branch, a difficult one, the picturesque and detailed presentment of a building, so that the reader may easily picture it in his mind's eye, is, as always, particularly happy. In such a pen-picture as his broad and illuminating description of the temple of Karnak he seems to make necessary some qualification of his own dictum as to the distinction existing between the subject-matter of the various arts. Here the pen appears to have annexed very completely some part of the domain of her sister-sovereign the brush.

A. E. STREET F.R.S.

LONDON BUILDING ACTS.

The London Building Acts 1894 to 1908. Section Edited by Sir John Lubbock, 10, Strand, and containing the London Building Acts Amendment Acts 1905 to 1908, and the London Building Acts 1905 to 1908. Edited by Sir John Lubbock, 10, Strand, 1908. Price 10s. 6d.

The recent amendment by the London County Council General Powers Act, 1908, of the provisions of the London Building Act, principally as to cubical extent and uniting of buildings, has necessitated the issue of a modified edition of Mr. Dicksee's now well-known treatise on the London Building Acts. The Act only received the Royal Assent on the 1st August last, and both author and publisher are to be congratulated upon the prompt issue of the notes upon the new enactment. The sections of the new Act, so far as they affect the building public, are set out in the form of a supplement to the second edition previously issued in 1906, and it is to these new sections that one naturally turns for an indication of the probable effect of the amendments upon the building law of London. The course followed has been the same as that adopted in previous editions—to print the sections of the Act in full, followed by the author's notes in smaller type. Probably there is no one better conversant with the vagaries of the London Building Acts than Mr. Dicksee, and the notes, though brief, are therefore of special value. Legal decisions are noted wherever possible, and the cross references to other sections of the Acts will be found particularly useful.

For purposes of comparison the repealed sections of the older Acts are also in many cases printed. This may appear at first sight an unnecessary addition, but it possesses the advantage of enabling one to see at a glance the essential differences in the two enactments. The Supplement also contains extracts from the Factory and Workshop Act 1907, and a copy of the suggested requirements of the London County Council under the Factory and Workshop Acts 1901 and 1907, and London Building Acts (Amendment) Act 1905, as to means of escape in case of fire. A very useful digest is also appended of the leading law cases decided in the High Court since 1905. A list of district surveyors and their districts also appears at the end of the book. Although dated September 1908, however, there are already several alterations to be chronicled owing to the readjustment of districts which has taken place recently.

The appearance of red printed slips in two places drawing attention to the repeal of Sections 75, 76, and 77 of the London Building Act 1894, and of the Factory and Workshop regulations published in the previous edition, emphasises the fact that the building law of London is still in an unsettled state; and with yet further legislation in prospect it

becomes increasingly important for architects and other professional men having the charge or supervision of building property to keep their legal information abreast of the times.

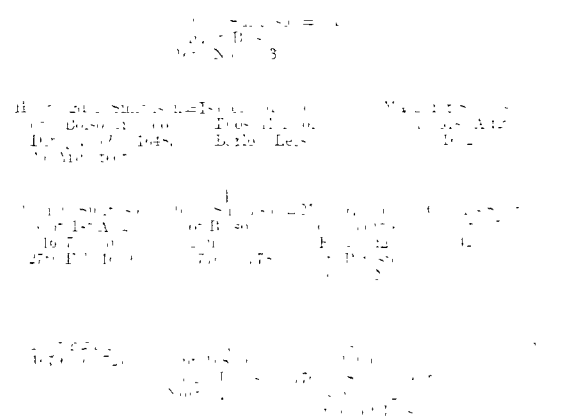
WILLIAM R. DAVENPORT, Esq.

THE SMITHSON DRAWINGS.

John Smithson.

Mr. Gatch, in his interesting paper on House Design in the Reigns of Elizabeth and James I., read on 16th November, raises the question as to the individuality of John Smithson, whom he conjectures must have existed, as some of the Smithson drawings which were kindly lent by Colonel Coke to illustrate his paper are signed "Jo. S."

I have just come across a pedigree of the Smithson family in the Harleian Society's publications, vols. 39 and 40, *Fam. Lieut. minor gentes*, which I think solves the problem, and as it may be of some interest at this moment I give it below.



Bolsover Castle, Smithson, it is said, was sent to Italy to collect designs.

He also states that Smithson died in 1648; and at the end of the notice says, "His son, a man of some skill in architecture, was buried in the same grave." There seems, however, in both these remarks to be some confusion between the two persons John and Huntingdon.

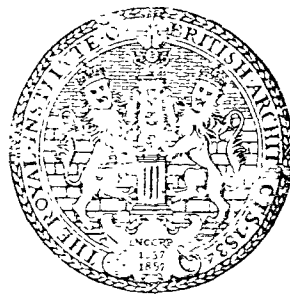
Samuel Pegge, the antiquary, in his letter descriptive of Bolsover Castle addressed to the Duke of Portland, 26th September 1785, says that Huntingdon Smithson, who was living at Bolsover in 1601, was its architect, and, referring to Walpole's account, says that by mistake he called him John. I do not, however, think that Pegge's correction is convincing, as Huntingdon's (presumed first-born, William, was not born until 1637; and although Huntingdon might have been living in 1601, it is not very probable that he was old enough to have been an architect in practice at that date.

The conclusions which I would therefore suggest, firstly, from the evidence of the signatures on the drawings, and, secondly, from Walpole's remarks, and especially the footnote thereto, are that John Smithson the elder was the architect of these buildings, that his son Huntingdon was associated with him in his practice and completed various works after his father's death, and that he was eventually credited with being the architect of them.

With regard to Robert Smithson's relationship to the Bolsover Smithsons, his epitaph at Wollaton states that "he lived in the faith of Christ 79 years, and then departed this life the 15th of October, A.D. 1614." He was therefore born in 1535, whilst William, the firstborn of Huntingdon, was born in 1637, an interval of 102 years, and assuming Robert to have been the father of John Smithson the elder, this interval would allow of three generations of an average of thirty-four years each, which would render this relationship quite practicable.

WALTER L. SPIERS.

It should be borne in mind that Walpole's anecdotes are transcriptions of George Vertue's notes made during his lifetime, 1684-1756, an earlier and greater antiquary than Samuel Pegge.



9 CONCH STREET, LONDON W. 19 S. Dec. 10th 1908.

CHRONICLE.

The Illustrations to Mr. Spence's Paper.

A large and interesting collection of drawings, cartoons, photographs, &c., illustrating notable examples of the decorator's art, was exhibited by Mr. T. R. Spence in the Institute Meeting-room on the occasion of his Paper last Monday. The collection included some fine engravings of Sir Lawrence Alma-Tadema's pictures, lent by Messrs. L. H. Lefèvre & Son; drawings of decoration by Professor Gerald Moira; photographs of panels for the Victoria and Albert Museum by Mr. Alfred Drury, A.R.A.; photographs of coloured sculpture by Mr. Aming Bell; designs by Mr. Frank Salisbury; a wall frieze in linen by Mr. Herbert A. Bone; wood-carving by Mr. W. Aumonier; drawings by Mr. A. J. Dix and Mr. Emery Walker; specimens and drawings by Mr. Longden, and several examples of frieze and other decorations, the author's own work, including cartoons of stained glass windows at Birmingham University.

Other illustrations were a series of Arandel prints, kindly lent by Mr. J. D. Crace [ILLUSTRATION], illustrating the interior of the Library of Siena Cathedral; fresco by Masaccio and Filippino Lippi in the Brancacci chapel of the Church of the Carmine at Florence; fresco by Razzi (Sodoma) in San Domenico at Siena; fresco by Andrea del Sarto in the Convent of the Annunciata at Florence; paintings in the church of SS. Nazario e Celso at Verona. Also coloured drawings by Mr. Crace of the ceiling of the stanza of "the School of Athens" by Sodoma; a ceiling in the Villa Madama by Raphael; ceiling of chapel in the Palazzo Vecchio, Florence, by Ridolfo Ghirlandajo; decorations of the Palazzo Doria, Genoa, by Pierino del Vaga; ceiling under gallery in church of Santa Maria dei Miracoli, Venice; and ceiling of sacristy, by Paul Veronese, in S. Sebastiano, Venice.

After the reading of the Paper Mr. Spence showed a series of about a hundred slides representing famous examples of various kinds of decorative work in Florence, Rome, Milan, Padua, Mantua, Burgos, Fontainebleau, and several of modern work.

The Wellington Monument in St. Paul's.

No definite information has so far been vouchsafed respecting the proposals of the Dean and Chapter of St. Paul's with regard to the completion of Stevens's Wellington monument in the Cathedral, and the matter is now, at the instance of the Art Standing Committee, under consideration by the Institute Council.

Mr. John Belcher, A.R.A., in a letter to *The Times* reprinted in the JOURNAL for the 7th November, stated that the present condition of the monument is a cause of some anxiety, and he referred to the vagueness of the Dean and Chapter's proposals for completion and to the ignorance of the public as to what is intended to be done. He urged too that all matters relating to the monument should be placed before the public, and that endeavour should be made to collect the original sketches and studies which were furnished by the artist for his work.

The Bishop of Stepney's reply to Mr. Belcher, and the latter's rejoinder, are reprinted below from *The Times* of the 9th and 14th November respectively:—

2 Abchurch Lane, St. Paul's, Dec. 7th November.

SIR,—With regard to Mr. Belcher's letter in *The Times* of 29th October, may I make two remarks on behalf of the Dean and Chapter of St. Paul's?

First, as to the strength and stability of the monument, all the facts are well known to the Dean and Chapter and have been carefully considered. Every care will be taken that the completion of the monument shall not affect its stability.

Secondly, in order that the public, and especially all who are interested in the work of Alfred Stevens, might have every opportunity of seeing the model of the equestrian figure and pediment, ample notice was given in the Press last December that it would be placed *in situ* in the Cathedral. It remained there open to public inspection for two months. No adverse criticisms were received. Further, before finally deciding as to the position of the figure and the design of the pediment, the Dean and Chapter had the opportunity of considering all the information which the late Mr. Stommus was able to give, and all the available original drawings of Stevens. Their decision was based upon these materials. It was only made in May, five months after the model had been exposed to public inspection. It will be recognised that it is too late now to reopen a discussion for which full opportunity was given during these months.—I am, &c.

C. G. STEPNEY.

20 Horseley Square, W., 11th November.

SIR,—The Bishop of Stepney, in his reply to my letter on the completion of the Wellington monument, confirms my statement that the public are in ignorance of the decision of the Committee.

This decision, we learn, was only made in May, and he adds, "before finally deciding as to the position of the figure and the design of the pediment, the Dean and Chapter made an examination of the available original drawings of Stevens."

What, then, was this decision? Was it to omit the equestrian figure altogether? Or was it to raise it, or

reverse it? It was to decide upon these and other points that the model was placed in position.

Reference is made to "the design of the pediment." This may be a misuse of an architectural term, since no alteration of the pediment has been indicated.

We have the Bishop's assurance that every care to preserve the stability of the monument will be taken, and it would be satisfactory to know what expert advice will be taken.

It is not with a view to open discussion that this letter is written, but rather because it is not yet too late to prevent damage being done to this important national monument.—I am, Sir, yours faithfully,

TOMAS BELCHER, A.R.A.

Tribute to the late Augustus Saint-Gaudens

A special feature of the convention of the American Institute of Architects held during the present week has been an exhibition organised by that body of the sculptural work of the late Mr. Augustus Saint-Gaudens. On the 15th inst. the convention was made the occasion of a Memorial Meeting held by the American Institute as a tribute of respect and of appreciation of the fame of the distinguished sculptor. The proceedings at the function were rendered additionally impressive by the reading of addresses from the principal art societies throughout the world, bearing testimony to the late sculptor's genius and to the universal admiration with which his work is viewed.

The following address, drawn up by a committee of the Sculptor Hon. Associates R.I.B.A., was forwarded on behalf of the Institute:—

"The Royal Institute of British Architects beg to offer to the American Institute of Architects their sincere sympathy in the great loss which art has sustained by the death of Augustus Saint-Gaudens.

"The sculpture of Saint-Gaudens is justly admired by artists all over the world, but nowhere is his beautiful and poetic work better known and appreciated than in England, where his death created the deepest regret.

"To the American people has been bequeathed a rich heritage of splendid sculpture, and to the history of modern art a great name."

The Housing and Town Planning Bill.

The Committee stage of the Housing and Town Planning Bill was completed on the 3rd inst., and the Bill was ordered to be reported to the House of Commons.

The second schedule sets out the matters to be dealt with by general provisions prescribed by the Local Government Board, including "*other*" "*other*" "*other*" buildings, structures, and erections."

Mr. Guinness moved at the last sitting to leave out the words quoted, because he objected to the municipal architect's being allowed to decide matters of elevation and architectural taste.

Mr. Burns opposed the amendment, and said the object of the words in question was to enable

the local authority to prevent the erection of buildings that not only were an abomination in themselves, but depreciated adjoining property. There were instances of private architecture that ought to have been controlled by the County Council, and, he believed, would have been prevented had it been possible, with the approval of every private owner of adjoining property.

The amendment was defeated by 28 to 6.

Mr. Burns accepted a proposal by Mr. Morrell to bring within the purview of the schedule "the preservation of objects of historical interest or natural beauty," and the amendment was agreed to.

An amendment brought forward by Mr. Morrell sought to give persons representing architectural or archaeological societies or otherwise interested in the amenity of a scheme an opportunity of being heard at the preliminary stage. It was pointed out that architects and others interested in architecture set great importance on getting the best opinion to bear on the local authority at the earliest possible moment. A local authority might be influenced in favour of a certain owner, and the proposal would provide some protection against jobbery and favouritism.

Mr. Vician supported the amendment in the interests of economy.

Mr. Burns said that the Local Government Board would do their best to see that architectural and artistic societies of repute should have all the power of representation which they sought to obtain, but he objected on grounds of procedure to their necessarily being brought in before a public inquiry was held. He proposed that they should have their opportunity in connection with the hearing of objections and representations by persons affected.

Several members expressed sympathy with the amendment, but Mr. Burns declined to go further, and Mr. Morrell withdrew his amendment in favour of the alternative suggestion of Mr. Burns, which was agreed to.

Since the above was reported, it has been decided to abandon the Bill for this Session and to reintroduce it early next Session.

Gift for Town Planning.

Mr. W. H. Lever, M.P., has made an offer, through Professor C. H. Reilly [Jr.] to the School of Architecture of Liverpool University to enable that body to undertake a systematic study of town planning, including all architectural aspects of civic design. The details of the scheme have not yet been definitely determined, but Mr. Lever has offered a sum of £500 to be spent in sending a commission abroad to collect information with a view to publishing a report. When this has been done Mr. Lever has further offered, for three years in the first instance, a sum of not less than £500 and not more than £1,000 a year, as may be needed, for

continued research and instruction. It is hoped when the time comes that a short course of study will be organised for advanced architectural students and architects in practice, especially for those who desire to obtain municipal employment as town surveyors or architects.

Design in the Constructive Arts

In the last issue of the JOURNAL mention was made of the series of lectures on preliminary design in the constructive arts which the Carpenters' Company are arranging to give in their Hall in the early months of the New Year. The lectures are intended primarily for craftsmen and those engaged in trades directly connected with the constructive arts, but all persons of either sex and of any trade or profession are invited to attend. At the end of the course six prize competitions are to be instituted among those who have attended not less than eight lectures. Four will be open solely to craftsmen and others who are actual workers in their respective trades and who are not professionally engaged in any architect's or designer's office. Two of the competitions will be open to anyone, irrespective of occupation. Good design will receive more consideration than skill in draughtsmanship, *i.e.* design thoroughly appropriate to the material dealt with. The subjects of the competitions will be announced later. The following is a syllabus of the lectures:—

Jan. 13, 20, 27: Reason in Building: or, The Common Sense Use of Materials, by Mr. R. Weir Schultz.

WOODWORK.

Feb. 3: The Historical Growth of Design, by Mr. L. Gay Dawber F.R.

Feb. 10: The Influence of Materials on Design, by Mr. F. W. Troup F.R.

Feb. 17: The Influence of Tools on Design, by Mr. A. Romney Green.

DESIGN AS APPLIED TO COMPLETED WORK.

Feb. 24, Mar. 3: Ideas in Things, by Mr. Chas. F. A. Voysey.
Mar. 10: Ideals in Building—False and True by Mr. M. H. Bailie Scott.

Mar. 17: House and Church Furniture, by Mr. Chas. Spooner F.R.

Mar. 24: Decorative Plaster Work, by Mr. Laurence A. Turner.

Mar. 31: External Lead Work, by Mr. F. W. Troup F.R.

April 7: Decorative Iron Work, by Mr. J. Stankie Gardner F.S.A.

The Smoke Nuisance and its Prevention.

In view of the Paper on "Smoke Abatement," to be read at the Institute this session by Sir Wm. Richmond, it will be of interest to note the precautions which are taken on the Continent, and particularly in Holland, to combat the nuisance. In the province of Zuid-Holland, for example, it has been decreed that only coke is to be used on locomotives, which, even under those conditions, must be provided with a smoke-consuming apparatus and with means to prevent the emission of

sparks and combustible matter. For all locomotives purchased in Holland the company has to furnish to the Supervising Board of Railways a statement containing, among other matters, a description of the contrivance for the burning of smoke, and before the engines can be placed in service they are examined by a Government inspector. The consumption of bituminous coal, either by locomotives or stationary furnaces, is not tolerated. No building can be erected without licence from the town council, and permission can be refused if a proposed building is likely to create a nuisance by the emission of smoke. Any person concerned may file an objection, the legal procedure being provided by law. Such drastic measures would not be likely to succeed in London, where manufacturers already appear to have sufficient inducement to migrate to the provinces; yet it is doubtful if possible loss in this direction would not be amply balanced by the gain to health, and in the saving effected by the abolition of the need for so much artificial light during that part of the day when the sun is near the meridian.

District Surveyorships: Recent Alterations.

The London County Council at their meeting on the 17th November 1908 agreed, on the recommendation of the Building Act Committee, to the following alterations in the appointments of District Surveyors and readjustment of several districts, as from and including 1st January 1909:—

- (a) Mr. Wiltred John Hardecastle [F.R.I.B.A.], at present District Surveyor for Battersea, Central, to be District Surveyor for Finsbury.
- (b) Mr. Herbert Alfred Legge [A.R.I.B.A.], at present District Surveyor for Hackney, West, to be District Surveyor for Fulham, the present districts of Fulham, South, and Fulham, North, being now united.
- (c) Mr. Albert Perkins Stokes, at present interim District Surveyor for Fulham, North, to be District Surveyor for Battersea, Central.
- (d) Mr. John Albert Gill Knight [A.R.I.B.A.], at present District Surveyor for Fulham, South, to be District Surveyor for Hackney, West.
- (e) Mr. Ernest William Lees [A.R.I.B.A.], at present District Surveyor for Lewisham, East, to be District Surveyor for Hackney, North-East.
- (f) The district of Lewisham, East, to be added to the district of Lewisham, West, and the district to be now known as Lewisham; Mr. William Robert Davidge [A.R.I.B.A.], District Surveyor.
- (g) So much of the district of the City of London, South, as is eastward of Queen Street to be added to the City of London, East; Mr. John Todd, District Surveyor.
- (h) So much of the City of London, South, as is westward of Queen Street to be added to the City of London, West; Mr. Christopher William Surrey [A.R.I.B.A.], District Surveyor.
- (i) The portion of the City of London, East, westward of Queen Street and southward of Cheapside to be added to the City of London, West.

Amendment of the London Building Act

The London County Council have decided to seek legislation next Session on the subject of buildings constructed of iron, or steel, or of reinforced concrete. At their meeting last Tuesday they had under consideration the subjoined proposed amendments of the London Building Act, and they have decided to introduce into Parliament early next year the General Powers Bill which it is understood includes these proposals:

PART V

27. In this part of this Act the expression "the principal Acts" means the London Building Acts 1894 to 1908.

28. Words and expressions used in this part of this Act shall, unless the context otherwise requires, bear the meanings assigned to them in the principal Acts, and these Acts and this part of this Act may be cited together as "The London Building Acts 1894 to 1909."

29. Notwithstanding anything contained in the principal Acts regarding buildings to be enclosed with walls of the thicknesses and of the materials therein respectively described, it shall be lawful to erect buildings of iron or steel skeleton construction subject to the provisions of this section, but buildings so erected shall be subject to all exemptions contained in the principal Acts or any of them, be subject to and comply with all such provisions of the principal Acts, or any of them, and any by-laws made or to be made thereunder as may not be inconsistent with or contrary to the provisions of this section. The following are the provisions which shall apply in respect of the construction of such buildings:—

(1) All rolled steel used in such construction shall comply with the British Standard Specification for structural steel for bridges and general building construction.

(2) The skeleton framing of a building shall be complete or safely and independently sustaining the whole dead load and superimposed load bearing upon such framing.

(3) The pillars (which expression wherever used in this section, unless otherwise stated, means metal pillars, and includes all columns and stanchions or an assemblage of such columns or stanchions properly fitted or bolted together) supporting all non or steel girders which carry walls, floors, or roofs shall be of iron or steel, and shall be completely enclosed and protected from the action of fire by a casing of brickwork, terra-cotta, or concrete. Such casing shall, towards the exterior surfaces of the enclosing walls of the building, be at least 8½ inches thick, and on all other surfaces of such walls at least 4 inches thick, the whole being properly bonded together.

(4) All non and steel girders (except girders in floors and staircases) shall be similarly cased with brickwork, terra-cotta, or concrete not less than 4 inches thick properly tied and bonded to the masonry work, but the edges of the flanges of the girders and plates and angles connected therewith may approach within 2 inches of the surface of the casing.

(5) The compression flange of every girder shall be secured against buckling wherever the length of the column exceeds twenty times the width of the flange.

(6) The span of a girder shall not exceed twenty times the depth of the girder, unless the calculated deflection of such girder is less than one four-hundredth part of the span.

(7) All girders which carry walls or floors or roofs shall be of wrought iron or mild steel.

(8) Where two or more girders or joists are employed

alongside one another and are intended to act together in supporting a wall or any other load they shall be fixed together by means of cast-iron separators and bolts, or by covered plates or in any other equally efficient manner which may be approved by the District Surveyor. Separators shall not be more than 5 feet apart, and shall be placed immediately over all supports and immediately under or at all concentrated loads.

(9) All girders for supporting the enclosing walls shall be placed at the floor line of each story or at a distance of not more than 4 feet above or below such floor line.

(10) Rivets shall be used in all cases where practicable, but where bolts are used the ends shall be buried over. The distance from the edge of a rivet hole or bolt hole to the edge of the plate bar or member shall not be less than the diameter of the rivet or bolt. Rivets shall be so placed that their centres shall not be further apart than sixteen times the thickness of the thinnest plate bar or member through which they pass, or closer together than three times the diameter of the rivets. The pitch of rivets shall be measured on a continuous straight line, and such straight line pitch shall not exceed sixteen times the thickness of the thinnest plate bar or member through which they pass, or be less than three times the diameter of the rivets.

(11) No enclosing wall of the building shall be less than $8\frac{1}{2}$ inches in thickness for the topmost 20 feet or its height, or less than 15 inches in thickness for the remainder of its height below such topmost 20 feet, provided that the window larks may in all cases be $8\frac{1}{2}$ inches in thickness. Provided also that a less thickness shall be allowed in any case in which under the London Building Act 1894 such less thickness is prescribed.

All party-walls shall be of the thicknesses prescribed by the principal Acts.

In any case in which an enclosing wall, or portion of an enclosing wall, is not supported or carried or secured by iron or steel frame construction within the limits of height and length prescribed by the first schedule to the London Building Act 1894 for the purpose of determining the thickness of walls, such enclosing wall or portion of enclosing wall shall be of a thickness not less than that prescribed by such schedule.

(12) All brickwork and concrete shall be executed in Portland cement mortar, and shall be bedded close up to the iron or steel without any intervening cavity, and all joints shall be made full and solid. The cement so used shall be in accordance with the British Standard Specification. Nothing in this section shall prevent the use of stone as an external facing for buildings, provided that all work faced with stone shall be at least 4 inches thicker than the thickness prescribed by the last preceding subsection of this section, and shall have a backing of brickwork not less than $8\frac{1}{2}$ inches in thickness.

(13) (a) No steel or wrought-iron pillar shall in any part be less than $\frac{1}{2}$ inch thick, nor shall any such pillar have an unsupported length of more than thirty-five times its least width, or more than 140 times its least radius of gyration.

(b) The ends of all such pillars shall be at right angles to the axis.

(c) All joints in such pillars shall be close-butted with cover-plates properly riveted, and unless unavoidable no joint shall be made in a pillar except at or as near as may be reasonably practicable to the level of a girder properly secured to such pillar.

(d) The foot of every such pillar shall have a proper base-plate riveted thereto, with sufficient gusset pieces to distribute properly the load on the foundations, and the gusset pieces shall have sufficient rivets to transmit the whole of the load on to the base plates.

(e) Where any such pillars are built up hollow, the cavities shall either be filled up with cement concrete or be covered in at both ends so as to exclude the air.

(14) (a) The width of every cast-iron pillar shall be not less than 5 inches, and the metal of which such pillar is composed shall not be in any part of less thickness than $\frac{1}{4}$ inch, or one-twelfth of the least width of such pillar (whichever shall be the greater), and no such pillar shall have an unsupported length of more than twenty times its least width.

(b) The caps and bases of such pillars shall be in one piece with the columns or be connected thereto with a properly turned and bored joint sufficiently fixed.

(c) The ends of all such pillars shall be at right angles to the axis.

(d) All joints in such pillars shall be at or as near as may be reasonably practicable to the level of a floor, and shall be fixed and made with not fewer than four bolts or not less diameter than the least thickness of metal in the pillar. If more than four bolts are used the diameter of the bolts may be reduced proportionately, but no bolts shall be less than $\frac{1}{2}$ inch in diameter.

(e) The base of all such pillars shall have such area as may be necessary to distribute properly the load on the foundations.

(15) In all cases of superimposed pillar the sectional area of the pillar shall be continued through the full depth of any transverse girder or joist interposed between the pillars, and may be made up by providing stiffeners of an aggregate sectional area not less than that of the superimposed pillar.

(16) (a) All floors and all staircases (together with their enclosing walls) shall be constructed throughout of fire-resisting materials and be carried upon supports of fire-resisting materials.

(b) All iron and steel carrying loads and used in the construction of any floor or staircase, and all internal pillars, shall be protected from the action of fire by being encased to the satisfaction of the District Surveyor, and to a thickness of not less than 2 inches in brickwork, terra-cotta, concrete, metal lathing, and plaster or cement. Wood linings shall not be used in connection with any such facing.

(17) All structural metal work shall be cleaned of all scale, dust, and loose rust, and be thoroughly coated with one coat of boiled oil or paint before erection, and after erection shall receive at least one additional coat. Where such metal work is embedded or encased in concrete, Portland cement wash may be used in lieu of oil or paint.

(18) (a) The dead load of a building shall consist of the actual weight of walls, floors, roofs, partitions, and all other permanent construction comprised in such building.

(b) The superimposed load in respect of a building shall consist of all loads other than the dead load.

(c) For the purpose of calculating the loads on pillars (including for the purposes of this paragraph brick pillars), piers, walls, framings, girders, joists, and other constructions carrying loads in buildings, the superimposed load on each floor and on the roof shall be estimated as equivalent to the following dead load:—

For a domestic building (not being a building intended to be used wholly or principally as offices or a counting-house), or a building intended to be used wholly or principally as a hotel, hospital, workhouse, lodging-house, 70 lb. per square foot.

For a building intended to be used wholly or principally as offices or a counting-house, or as a school, college, or place of instruction, 100 lb. per square foot.

For a public building (not being a building intended to be used wholly or principally as a hotel, hospital, workhouse, lodging-house, school, college, or place of instruction), or a building intended to be used wholly or principally as a workshop or retail shop, 112 lb. per square foot.

For buildings of the warehouse class not less than 224 lb. per square foot; but if the superimposed loads exceed 224 lb.

per square foot such greater superimposed load shall be provided for pursuant to subsection (2) of this section. In every building of the warehouse class a notice shall be exhibited in a conspicuous place on each story of such building stating the superimposed load which may be carried on the floor of such story.

For a roof the plane of which inclines upwards at a greater angle than 20 degrees with the horizontal the superimposed load (which shall for this purpose be deemed to include wind pressure) shall be estimated at 28 lb. per square foot of sloping surface.

For all other roofs the superimposed load shall be estimated at 56 lb. per square foot measured on a horizontal plane.

(19) For the purpose of calculating the total load to be carried on foundations pillars (including for the purposes of this subsection brick pillars, piers and walls in buildings of more than two stories in height the superimposed loads for the roof and top story shall be calculated in full in accordance with the last preceding sub-section of this section but for the lower stories a reduction of the superimposed loads shall be allowed as follows:—

For the story next below the top story a reduction of 5 per cent. of the full superimposed load calculated as aforesaid.

For the next succeeding lower story a reduction of 10 per cent. of the full superimposed load calculated as aforesaid and for each succeeding lower story a further reduction of 5 per cent. of the full superimposed load calculated as aforesaid. Provided always that the total reduction in respect of any story shall not exceed 50 per cent. of the full superimposed load.

No such reduction as aforesaid shall be allowed in the case of a building of the warehouse class.

(20) All buildings shall be so designed as to resist safely a wind pressure in any horizontal direction of the following respective amounts:—

(a) Where the height of the building does not exceed four times the least width thereof, 30 lb. per square foot.

(b) Where the height of the building exceeds four times the least width thereof, a number of pounds per square foot equal to two and one half times the ratio of the height of the building to its least width at the ground level added to twenty. Provided that it shall not in any case be necessary to provide for resisting a wind pressure of more than 50 lb. per square foot.

(21) The working direct stresses on pillars of cast iron or mild steel shall not exceed those specified in the two next following tables according to the several ratios therein specified, or a proportionate load for intermediate ratios:—

CAST-IRON PILLARS			
Ratio of Length in Inches to Least Radius of Gyration in Inches	Working Direct Stresses in Tons per Square Inch of net section		
	Hinged Ends	One End Hinged One End Fixed	Both Ends Fixed
20	3.2	3.3	3.5
25	3.0	3.2	3.4
30	2.8	3.0	3.3
35	2.5	2.9	3.2
40	2.3	2.7	3.0
45	2.0	2.4	2.9
50	1.8	2.3	2.8
55	1.5	2.1	2.6
60	1.3	1.9	2.4
65	1.2	1.7	2.3
70	1.0	1.6	2.1

MILD-STEEL PILLARS			
Ratio of Length in Inches to Least Radius of Gyration in Inches	Working Direct Stresses in Tons per Square Inch of section		
	Hinged Ends	One End Hinged One End Fixed	Both Ends Fixed
20	5.0	5.0	5.1
30	4.8	4.8	4.9
40	4.4	4.5	4.7
50	4.0	4.2	4.4
60	3.5	3.9	4.2
70	3.0	3.5	4.0
80	2.6	3.2	3.7
90	2.3	2.9	3.5
100	1.9	2.5	3.2
110	1.6	2.3	3.0
120	1.4	2.0	2.7
130	1.2	1.8	2.4
140	1.0	1.6	2.2

(22) The working direct stresses on wrought-iron pillars shall not exceed five-sevenths of the stresses herebefore specified with respect to the working direct stresses on mild steel pillars.

(23) Where a pillar is built into a wall the least radius of gyration of that pillar shall be taken for the purposes of the tables referred to in subsection (21) of this section.

(24) The working stresses of iron and steel (except in the case of pillars as herebefore provided) shall not exceed the following:—

	Working Stresses in Tons per Square Inch			
	Tension	Compression	Shearing	Bearing
Cast iron	1.5	8	1.5	10
Wrought iron	5	4	4	7
Mild steel	7	7	5	10
Cast steel	5	10	7.5	15

(25) The pressures of foundations on the natural ground shall not exceed the following:—

	Tons per Square Foot
Natural bed of soft clay, wet or loose sand	1
Natural bed of ordinary clay and dry compacted sand	2
Natural bed of ordinary gravel	3
Natural bed of compact gravel, London blue clay and chalk	4

(26) The pressure on concrete foundations shall not exceed 12 tons per square foot.

(27) No disengaged brick pillar shall have a height greater than twelve times its least width.

(28) The pressure on brickwork shall not exceed the following:

	Tons per Square Foot
Blue brick in cement mortar	12
Hard brick (including London stock) in cement mortar	8
Common brick in cement mortar	5

(29) Any person proposing to erect a building of iron or steel skeleton construction shall not less than one month before the commencement thereof, deposit with the District

Surveyor a complete set of drawings of such building, showing the details of construction of all its parts, together with a detailed copy of all the calculations of the loads and stresses to be provided for, and particulars of the materials to be used. Should such drawings, calculations, or particulars be, in the opinion of the District Surveyor, not in sufficient detail, the person depositing the same shall furnish the District Surveyor with such further drawings, calculations, or particulars as he may require.

(30) The District Surveyor may, for the purpose of due supervision of the building, and at the expense of the owner of the building, cause any pillar to be drilled at any point to ascertain its thickness, and may cause to be made any other tests which he may consider desirable.

(31) All buildings in accordance with the foregoing provisions of this section shall be constructed to the satisfaction of the District Surveyor.

(32) Any person dissatisfied with any requirement or decision of the District Surveyor under this section may appeal to the Council, whose determination shall be final.

(33) It shall be lawful for the Council in any case in which they think fit so to do, to modify or waive any of the requirements of this section, and to impose any terms and conditions upon any such waiver or modification, and any person failing to comply with any such term or condition shall be liable to a penalty not exceeding £20, and to a daily penalty not exceeding a like amount.

30. (1) The Council may make regulations with respect to the construction of buildings wholly or partly of reinforced concrete, and with respect to the use and composition of reinforced concrete in such construction, and for the purpose of framing such regulations may carry out such investigations and make such tests as they may deem necessary, and the provisions of this section and of any such regulations shall have effect, notwithstanding any provisions of the principal Acts or any of them, or any by-law made or in force thereunder which may be inconsistent therewith or contrary thereto.

(2) Subject to such regulations as aforesaid, buildings may be constructed wholly or partly of reinforced concrete, but except as provided by this section or by such regulations, buildings so constructed shall (subject to any exemptions contained in the principal Acts or any of them) be subject to and comply with all such provisions of the principal Acts or any of them, and of any by-laws made or in force thereunder as may not be inconsistent with or contrary to the provisions of this section or any regulations made thereunder.

31. For the purpose of securing the due observance of the provisions of this part of this Act and any regulations made thereunder, such provisions and regulations shall be deemed to form part of Part VI. of the London Building Act 1894 and any references in the principal Acts to the said Part VI. shall be construed accordingly.

32. Where more than one-half of the whole structure of any building consists of iron or steel skeleton construction or reinforced concrete, the fee to which the District Surveyor shall be entitled in respect of any of the matters referred to in Part I. of the third schedule to the London Building Act 1894 under the respective headings "On new buildings" and "On additions, alterations, or other works," shall be a fee exceeding by one-half the amount of the fee specified in that portion of the said part of the said schedule which precedes the proviso therein contained, and where any fee is increased under the provisions of this section, there shall be no further increase under the said proviso.

Early in the year 1904 the Institute, at the invitation of the London County Council, made a series of Recommendations showing the lines on which the London Building Act might be amended, and at the same time submitted certain regulations

for Skeleton Frame Structures which it was suggested should not be inserted in the Act, but treated as By-laws; or, if embodied in the Act, power should be reserved to vary them as experience proved to be necessary. These recommendations and suggestions, which were printed and sent to the London County Council, will be found in the *JOURNAL* for 6th February 1904, pp. 181-92.

Glastonbury Abbey . Preservation of the Ruins.

Glastonbury Abbey, which is to be handed over with ceremony next summer to the Archbishop of Canterbury and other episcopal custodians, is now under the care of Mr. W. D. Caroe, F.S.A., who is engaged in putting the ruins into such repair as will enable them to resist further decay and the destructive action of the weather. The examination of the Abbey had been made, and the proposals for repairing it decided upon, even before the final completion of the purchase. Immediately after that transaction, the scaffolding being already in position, the work of preservation was begun.

The Times a few days ago gave some particulars of the work proposed to be done. To begin with the Lady Chapel, popularly known as St. Joseph's Chapel, it has been decided to rebuild the lower parts of the missing turret at the south-west angle. Such reparations as are necessary will be made in stone from the same quarry and the same bed as those from which the stones were obtained which were used in the original work, and which have stood the weather so admirably. This is oolite from the Doulting quarries, a stone largely used in Somerset, especially at Glastonbury Abbey and Wells Cathedral. It was also used exclusively for Christ Church Cathedral in Dublin, a building of the same period—namely, the latter part of the twelfth century. The stones for the Dublin building were quarried in Somerset and conveyed to Ireland in boats. The Lady Chapel of Glastonbury Abbey, which is the most valuable remnant of the whole, as it is also the most intact, was built entirely in the short space of two years by King Henry II. at his own charges. The foundation-stone was laid in 1184, and the consecration took place in 1186. Where the dressed stone has been removed wilfully for use elsewhere, and the core of the wall exposed, to its detriment, new stone will be introduced in its place. Naturally this will generally be necessary in the lower parts of the building.

The Lady Chapel is at the west end, not at the east, where Lady Chapels are frequently found in such edifices. The arch at the east end of the Lady Chapel, which was inserted in the thirteenth century, at the time when the Lady Chapel was connected up to the west end of the great church by what is known as the Gahlee, will be reinstated in order to give stability to this end of the building, which threatens to fall inwards. Care will be

taken to secure the various groin springers, which are at present in a dangerous condition.

The crypt of the Lady Chapel and the Galilee possesses peculiar interest, due to the fact that it was an insertion of the fifteenth century made in order to meet the needs of persons desiring to be buried in the Abbey in consequence of the alleged discovery of the grave of Joseph of Arimathea. This crypt has already been treated with the grouting machine—the walls have been consolidated.

Of the nave there remains only a small portion of the south wall. The vegetation will be removed from the top of the wall, which will be made waterproof.

The eastern tower piers present one of the chief difficulties in the way of preservation in consequence of the overhanging masonry. Various methods of dealing with these have been suggested, one of them being to re-erect the adjoining choir piers and arches. Unfortunately, however, no evidences remain of the exact form of these, as the original work was greatly altered by Abbot Monington in the fourteenth century. It was not considered advisable, therefore, to design piers which might, or might not, have been accurate reproductions of the ancient forms. A point of interest in connection with the choir is that it was glazed on its interior instead of on its external face at the time when the alterations were carried out by Abbot Monington. This is believed to be a unique instance of such a treatment. It has been found possible to support the overhanging masonry, to which reference has been made, from the lower parts of the piers themselves, and to add stability to the whole by filling in the circular staircases, which exist in the upper part of the piers and originally gave access to the central tower. The remaining walls of the chancel, which, again, are complete only on the south side, will be dealt with in the same way as the walls of the nave.

The Edgar Chapel, recently discovered by Mr. F. Bligh Bond, which makes the whole church by many feet the longest of the cathedrals or monastic churches of the country, will be dealt with so as to show its form and foundations. At present the whole of the ruins are surrounded by scaffolding, but it is hoped that all the work will be completed and the scaffolding removed by the early summer when it will be possible again to admire the beauty of the ruins.

The Excavation of Herculaneum

The Times correspondent at Rome states that Commendatore Boni reports hopelessly on the present prospects of the excavation of Herculaneum. In accordance with the plan determined upon, a shaft two metres square has been already sunk to a depth of eighteen metres, or what is

calculated to be the road level of the ancient city. From the bottom of this shaft and from similar shafts dug elsewhere it was intended to carry radiating galleries to search for and expose the streets of Herculaneum. The shaft already made, which was equipped with electric light and a lift, now proves useless owing to the objection offered by the owners of surrounding houses. The unfortunate publicity given to Herculaneum and the extravagant accounts published of its possible treasures have so excited the expectations of the people of Resina that they will allow no excavation at any depth below their houses without the deposit of an exorbitant sum to represent their share value of the discoveries. It is useless, therefore, to sink new shafts or attempt further operations until the new law depriving landowners of any property in antiquities below the soil has been definitely passed, or a special law has been made similar to that already passed for the Zona Monumentale at Rome.

The Poster Competition

The premium of one hundred guineas offered by Mr. H. Greville Montgomery, M.P., for the best design for a poster in connection with the forthcoming International Building Trades Exhibition, Olympia, has been awarded to Mr. George Denham, of Kensington, W., architectural student at the Royal College of Art. The adjudicators, Mr. Ernest George, *President R.I.B.A.*, Sir Aston Webb, R.A., [F.R.S.], and Sir George Frampton, R.A. [H.L.], were unanimous in their award. Some two hundred designs were sent in, and they will be exhibited at the next Building Trades Exhibition, 17th April to 1st May 1909.

COMPETITIONS.

South Bank-in-Normanby Town Hall, Market Hall
Council Offices, &c.

Members of the Royal Institute are advised not to take part in the above Competition.

By order of the Council.

IAN MACALISTER,
Secretary R.I.B.A.

THE AUTUMN EXAMINATIONS.

The Preliminary.

The Preliminary Examination, qualifying for registration as *Probationers R.I.B.L.*, was held in London and the undermentioned provincial centres on the 9th and 10th November. Of the 147 candidates admitted, claims for exemption from sitting for the Examination were allowed to the number of 47. The remaining 100 candidates were examined, with the following results:—

District	Number Examined	Passed	Rejected
London	50	37	13
Birmingham	3	3	—
Bristol	7	5	2
Cardiff	7	3	4
Glasgow	1	—	1
Leeds	5	3	2
Liverpool	9	2	—
Manchester	19	13	6
Newcastle	6	4	2
	100	70	30

The passed and exempted candidates—numbering altogether 117—have been registered as Probationers. Their names and addresses are as follows:—

ALEXANDER: Walter: 20 Westbourne Gardens, Glasgow.
 ANNS: Kenneth: 2 Wellesley Grove, East Croydon.
 ARCHER: Herbert Humbley: Maylands, 29 Hill Road, Chelmsford.
 ARCHIBALD: Howard Mair: Ingham House, Stockwell Road, S.W.
 ARMSTRONG: Thomas Francis: Hawley, Dartford, Kent.
 ARNOLD: William Lionel Nugent: Kendal Villa, Lower Hillmorton Road, Rugby.
 ASKEY: Alpha Harry: 49 Barrett Road, Walthamstow.
 ATKINSON: Frank: The Ridge, Bingley.
 AYLWIN: Guy Maxwell: 8 West Street, Farnham.
 BASEVI: James: Ingham House, Stockwell Road, S.W.
 BATES: Cyril Francis: 3 Serpentine Road, Newport, Mon.
 BECK: Henry Bekeley: 6 St. Mary's Grove, Stamford.
 BELLAMY: Omond: 3 Loveday Road, Ealing, W.
 BLSWICK: Harry: Queen's Park, Chester.
 BOOTH: Allan Hodgson: 161 Keighley Road, Tring, Herts.
 BRIGHT: Arthur Kingsley: Lea Hurst, Mappley Road, Nottingham.
 BROOKS: Archibald Buckley: The Manor House, Hale Barns, Cheshire.
 BROWN: Collings William: c/o C. L. Mallows, Esq., 28 Conduit Street, W.
 BUTFEY: Frederick Hubert: c/o Dr. F. G. Butley, 18 Hutt Street, Hull.
 CAREY: Ruben Walter: 28 Quadrant Road, Canonbury.
 COURTNEY: Henry Gother: 1 Peterham Terrace, S.W.
 COX: William Douglas: 42 Southfield Road, Middlesbrough.
 CRAMPION: Joshua: Arden House, Belmont Street, Southport.
 CREED: Richard, Junr.: 8 Gray's Inn Place, W.C.
 CROUCH: Frederick Alfred: 75 Portland Road, Hove, Brighton.
 CULLERSE: Harold: "Bridge House," Lugwardine, Hereford.
 DAIY: Mamo: Segrave, Ryelands, Caterham, Surrey.

DAVIES: William Edward: Cedar Bank, Liverpool Road, Chester.
 DAVISON: William Robert: Longhirst Brooks, Morpeth.
 DENNE: Lionel George Lewis: School House, King's School, Canterbury.
 DETMOLD: Frederick Guy: 6 King's House, St. James's Court, Buckingham Gate, S.W.
 DUNCAN: John: 25 Buccleuch Place, Edinburgh.
 EDWARDS: Arthur Trystan: 41 Parliament Hill Mansions, Highgate Road, N.W.
 ELSTON: James: Station Chambers, Foundry Bridge, Norwich.
 ELSWORTH: Lancelot Andrew: 139 Victoria Road, Headingley, Leeds.
 EMBERTON: Joseph: Church Street, Audley, North Staffs.
 FARNDEN: Herbert Arnold: Valetta, De Cham Road, St. Leonards-on-Sea, Sussex.
 FERGUSON: Cyril Harold: 6 Bewlay Street, York.
 FIELD: Wilberforce Anstey: Epworth House, Padiham, near Burnley.
 FRAME: Robert Sinclair: Coningsby Place, Alloa.
 HANBURY: Philip Henry: Tacklawney, Combe Down, near Bath.
 HARDMAN: Cyril Ernest: 12 Manchester Road, Bury.
 HARRILD: Fred. Junr.: 10 Gray's Inn Place, Gray's Inn, W.C.
 HART: Edward Goyen: The Pound, Newnham-on-Severn, Gloucestershire.
 HAYWARD: Kenneth John: The Vicarage, Bruton, Somerset.
 HAZELL: Frederick Pusey: Chevington, Kingsbury Street, Marlborough.
 HEAL: Albert Victor: 7 Gray's Inn Square, W.C.
 HILL: Henry Oswald William: The Nook, Oughterington, nr. Lymington, Cheshire.
 HOLBROOK: Arthur James: Clyde Villa, Foreland Road, Bembridge, Isle of Wight.
 HOPE: William: 37 Beverley Terrace, Cullercoates.
 HOWCROFT: Gilbert Burdett: Spring Grove, Uppermill, Oldham.
 HUGHES: Thomas Harold: Abbey House, Colbridge, Stoke-on-Trent.
 HUNT: Oliver Grahame: 7 Gray's Inn Square, W.C.
 INMAN: Gordon Henry Nisbet: c/o W. Campbell Jones, Esq., 32 Bedford Row, W.C.
 IRWIN: George Francis: 2 Alpine Terrace, Onchan, Isle of Man.
 JACKSON: Albert John: 2 Belvidere, Weymouth.
 JAYES: John Walter: Sunnyside, Princes Road, Ashford, Middlesex.
 JENKINS: Trevellyn Philip: Hawthorne Villa, Eaton Crescent, Swansea.
 JEPSON: Henry Norman: 431 Bolton Road, Darwen, Lancs.
 JOHNSON: Alexander Le Bun: Viewbank, Bannhill, Broughty-Ferry, Scotland.
 JONES: Thomas Anthony: 34 Manchester Street, Manchester Square, W.
 KNELLER: Walter Alfred: Cloughton Lodge, Woolston, Southampton.
 LANGDALE: Arthur Hugh: School House, Tonbridge, Kent.
 LEWCOCK: George: 4 Clarence Terrace, Hampton Hill, Middlesex.
 LISTER: Charles Edward Langley: Burlington House, Hampton Hill, Middlesex.
 LONE: Reginald Wilcox: Glenziddie, Montalt Road, Woodford.
 MACGREGOR: John Eric Miers: Stamford Brook House, Hammet-smith, W.
 MACKENZIE: Frederick Wheatley: "Inchkeith," Broxbourne, Herts.

MACKENZIE: Kenneth Beaumont: North House, Lockwood, Huddersfield.
 MANLOVE: John Edward Davis: 19 Gravelly Road, Kilham Prov., N.W.
 MARGETSON: Oliver: The Manor House, Blwbury near Didcot Berks.
 MARTIN: Cyril Frederick: Eyton, Langthorpe Road, Edgbaston, Birmingham.
 MAW: Arthur Rogers: 107 Windsor Road, Oldham.
 MILLER: Herbert Cecil: Glencroft, Bath Street, Rugby.
 MOORE: Frank Allen: Knowle House, Knowle, Bristol.
 MOSSE: Philip Godfrey: 27 North Side, Clapham Common S.W.
 NEFDHAM: Keith: Holly Bank, Werneth, Oldham.
 OLIVER: Ernest Edward: 4 Gladstone Street, Hartlepool.
 PATERSON: William: Verbena Villa, 3 Seacums Gardens, Edinburgh.
 PAUL: Herbert Noel: Ganton Park, Norwich.
 PEASE: Alex.: Education Offices, Hordsham, Sussex.
 PERKINS: Frederick William: 2 Cheeshill Street, Winchester.
 PETTIFER: Frederick Richard: 22 Beaumont Avenue, Richmond.
 PICKMERE: John Richard: Wychall Lane, King's Norton, Worcestershire.
 PRICE: Henry Wall: Park Villa, Compass Hill, Taunton.
 RAYSON: Thomas: 10 Kemerton Road, Camberwell, S.E.
 RICHARDS: Richard Russell: 31 Tywhitt Road, St. John's S.L.
 ROBERTS: Arthur Beaver Llewelyn: 6 Carlyle Square, Chelsea, S.W.
 ROBERTS: William John: c/o Messrs. J. W. Beaumont & Son, 10 St. James' Square, Manchester.
 ROSS: William Alexander: 15 Highgate Avenue, Highgate, N.
 SAXON: Frederick Charles: 17 St. Albans Street, Rochdale.
 SHILPHERD: John Sunderland: 35 Hopwood Street, Barnsley, Yorks.
 SLATER: Martin Johns: 2 Market Place, Hadleigh, Suffolk.
 SMITH: Elsie Hubert: 13 Mand-stone Road, New Southgate, N.
 SMITH: Hubert John: 45 Coleraine Road, Blackheath, S.E.
 SMITH: Robert Ronald Tab: The Gables, 30 Wentworth Road, York.
 SPOONER: Frank Philip: 19 Ellsworth Road, South Hampstead, N.W.
 STREIBERGER: Philip: 6 High Street, Walthamstow, Essex.
 SURVEYOR: Mirwanjee Triampo: Wellington Street, Dhobhi Talao, Bombay.
 SWINTON: James Gibson: 6 Viewbank Terrace, Clepington Road, Dundee, Scotland.
 TALVALKLER: Vasudeo Ranchandra: 18 Tufton Street, Westminster, S.W.
 TAYLOR: Rowland Victor, Myton: 25 Curzon Road, Southport.
 THIRTLI: Tom Owen: 33 Grove Road, Norwich.
 THOMSON: Alexander Mitchell: Kenmore Terrace, Carnegie, Fortarline, N.B.
 TOPHAM: Geoffrey Ronald Gilbertson: 2 Dartmouth Place, Blackheath, S.E.
 TOWNLEY: Arthur Eric: Cogleigh, Oakfield Road, Selby Park, Birmingham.
 WALCH: James Bernard Millard: 21 Benslow Lane, Hitchin, Herts.
 WHITE: Theodore Francis Hansford: 14 Cavendish Place, Cavendish Square, W.
 WHITEHEAD: Percy: Court Street, Uppermill, near Oldham.
 WHITEHEAD: Thomas Gustavus: 1 Dunheved Road, North Croydon.

WILKINSON: Walter George: 13 Parkhurst Road, Haverstock Hill, N.W.
 WILLIAMS: John Hugh: 71 St. Domingo Vale, Liverpool.
 WILSON: James Montague: Elm Park, Salford, Breckity, Leyland, Lancs.
 WILSON: John William George: 5 Beaumont Mews, Hart Street, W.C.
 WOOD: Herbert McGee: 125 Kersley Road, Liverpool.
 WOODHOUSE: Cecil Herbert Mackay: 96 New Wall, Leicester.
 WYATT: Philip Harry: 15 Royal Road, Watlington Common, S.W.

The Intermediate Examination

The Intermediate Examination, qualifying for registration as *Student R.I.B.A.*, was held in London and at the undermentioned provincial centres on the 9th, 10th, 12th, and 13th November. One hundred and fifty-two candidates were examined, and the results are reported as follows:—

District	No. Examined	Passed	Result
London	77	36	41
Bristol	6	4	2
Cardiff	5	3	2
Glasgow	4	2	2
Leeds	16	6	10
Liverpool	8	5	3
Manchester	24	11	13
Newcastle	12	5	7
	152	72	80

The names and addresses of the successful candidates are as follows, being given in order of merit, as placed by the Board of Examiners:—

(The initial 'P.' in the subjoined list signifies 'Passed' in the *R.I.B.A.*.)

RAHBLA: Eino St. Alexander Rabl: P. 1905: 18 Grange Road, Barnes, S.W.
 BARLOW: George: P. 1906: 23 Alexander Grove, Longsight.
 ROBINSON: John Charles [P. 1907]: Barn Street, Mairborough.
 NORQUOY: James: P. 1901: Oakley House 7 Dispenser Street, Cardiff.
 SLATER: John Alan: P. 1907: 11 St. John's Wood Park, N.W.
 NIMMO: William Wilson: P. 1905: 3 Osborne Terrace, Gosforth, Newcastle-on-Tyne.
 MOBERLY: Arthur Hamilton: P. 1907: 10 Compton House Road, W.
 CUNNINGHAM: William Willie: P. 1903: c/o Grace 99 Grant Street, Glasgow.
 TURNBULL: Frederick Loraine: P. 1904: 65 Wargreave Road, Newcastle-on-Tyne.
 COWDELL: Charles Joseph Morton: P. 1904: c/o Sunny-side, Springfield Road, Leicester.
 REIVE: Thomas: P. 1906: 20 Linwood Road, Levenshulme, Manchester.
 HAMLYN: William Henry: P. 1906: c/o R. Wynn Owen, Esq., 60 Castle Street, Liverpool.
 MOORE: Thomas Sydney: P. 1903: Selby Terrace, Maryport, Cumberland.
 BASKERVILLE: John Albert: P. 1903: 19 Delaunays Road, Crumpsall, Manchester.
 HOWE: Wilfred: P. 1904: 121 Uppertonpe Road, Sheffield.

- BOTT: Thomas Charles [P. 1907]: c/o Messrs. Tail & Herbert, 18 Friar Lane, Leicester.
- ORDISH: Roland [P. 1906]: 1 Bailey Street, Derby.
- PAGE: John, B.A. Cantab. [P. 1900]: 14 Christ Church Road, Hampstead, N.W.
- WILKINSON: William Henry [P. 1905]: Ivy Bank, Swires Road, Halifax.
- TAPPER: Michael John [P. 1905]: 10 Melina Place, St John's Wood, N.W.
- WINTER: Douglas Charles [P. 1906]: "Southgate," Ceylon Road, Westcliff-on-Sea.
- STEDHAM: Percy Norman [P. 1905]: 91 West Street, Fareham, Hants.
- CARTER: George Ralphs [P. 1905]: 8 Tower Street, Welford Road, Leicester.
- HAWKINS: Frederick George [P. 1908]: 8 Church Walk, Hendon, N.W.
- KING: Cecil Frederic Ashneld [P. 1905]: "Whitecroft," Ashton-on-Mersey, Cheshire.
- WEEDON: Harry William [P. 1905]: The Hawthorns, Church Hill Road, Handsworth, Birmingham.
- CORNELL: Albert Ernest [P. 1906]: "Pinehurst," Broadfields Road, Chester Road, Erdington.
- BAYLIS: Arthur Gidlow [P. 1907]: c/o A. F. Watson, 38 Church Street, Sheffield.
- AXTEN: Herbert Joseph [P. 1901]: 18 Beresford Road, Hornsey, N.
- BARROW: Thomas Henry [P. 1905]: 100 Shenby Road, Camberwell, S.E.
- BLACKER: Miss Evelyn Dew [P. 1905]: 20 Victoria Square, Clifton, Bristol.
- BOWER: George Richard [P. 1906]: 13 St. James's Row, Sheffield.
- BREWERTON: Frank Asquith [P. 1906]: 20 Mayfield Road, Whalley Range, Manchester.
- BURGESS: Arthur [P. 1906]: 31 Parkfield Road, Sefton Park, Liverpool.
- CALDER: Gilbert James [P. 1902]: 52 Cloudestale Road, Upper Tooting, S.W.
- CATCHPOLE: Edgar Gooding [P. 1904]: 181 Princes Street, Ipswich, Suffolk.
- CHANTER: Horace Raymond [P. 1907]: 3 Camden Gardens, Shepherd's Bush, W.
- CLAY: Geoffrey Basil [P. 1903]: 225 Gloucester Terrace, Hyde Park, W.
- COCK: Roland Henry Liebreich [P. 1904]: 2 Tremmer Road, South Kensington, W.
- CARKILL: Lawrence Lavery [P. 1905]: Riverside, Ramsey, Isle of Man.
- EVANS: Thomas Glynn [P. 1907]: 19 Rufford Road, Liverpool.
- FORBES: Alexander [P. 1905]: Highmore Lodge, Highmore Road, Caversham.
- GODFREY: Henry Victor [P. 1905]: 26 Ingersoll Road, Shepherd's Bush, W.
- HARROLD: William Howieson [P. 1904]: c/o Charles Mitchell, Esq., 23 Hill Street, Edinburgh.
- HARTMANN: Carl Herbert [P. 1905]: Nethenfield House, Weybridge.
- HAWLEY: Charles Dearman [P. 1904]: 9 Dudley Road, Tunbridge Wells.
- HEAVEN: Frank Henry [P. 1907]: 5 Rock Street, Aberkentig, Bridgend, Glam.
- JARRETT: Eric Rowstone [P. 1905]: 40 West Side, Clapham Common, S.W.
- MINTON: Leonard [P. 1905]: Ashfield Villas, Stockton-on-Tees.
- LONG: Charles William [P. 1906]: "Rhodhurst," Leigham Court Road, S.W.
- MANSFIELD: Leslie [P. 1903]: "Ivall," Southborough Road, Bickley, Kent.
- MINNS: Stanley Eldon [P. 1905]: 718 Anlaby Road, Hull.
- OWEN: Geoffrey [P. 1906]: 20 Queen Square, W.C.
- PETERS: Thomas James [P. 1906]: 14 Harrington Street, Newcastle-on-Tyne.
- PROCTOR: William Cope [P. 1903]: 70 Pembroke Road, Clifton, Bristol.
- RAYMONT: Albert Hugh [P. 1906]: 27 Claremont Road, Cricklewood, N.W.
- ROWNTREE: Douglas Woodville [P. 1906]: 11 Hammer-smith Terrace, Hammersmith, W.
- SHOOSMITH: Arthur Gordon [P. 1906]: 164 Friar Street, Reading.
- STOUT: John Joseph [P. 1904]: 4 Corporation Street, Stockton-on-Tees.
- STUART: Alexander Davidson [P. 1906]: 4 Coniger Road, Parson's Green, S.W.
- SYMINGTON: Herbert Andrew [P. 1902]: 18 Lincoln Street, Leicester.
- THOMAS: Charles Stanley [P. 1903]: 9 Hill Street, Newport, Mon.
- TINKER: Arthur [P. 1905]: Bank House, Pendleton, Manchester.
- TOONE: John Alzernon Edmund [P. 1905]: 228 Plymouth Grove, C.-on-M., Manchester.
- WALKER: Henry Coulton [P. 1904]: Dendron House, Ulverston, Lancs.
- WALKER: Sam Parham [P. 1904]: 5 Victoria Street, Newark-on-Trent.
- WEST: Archibald Buller [P. 1905]: "The Knowl," Abingdon, Berks.
- WHINCOP: Walter George [P. 1904]: 74 Foley Avenue, Stoke Newington, N.
- WHYMPER: William [P. 1900]: "St. Clares," Ditton Hill, Surbiton, Surrey.
- WILLIAMS: Enoch [P. 1906]: 11 Artesian Road, Westbourne Grove, W.
- WILSON: Geoffrey Cecil [P. 1903]: "Renby," 45 High Road, Streatham.
- WILSON: Herbert [P. 1906]: Hazel House, Tadcaster.

Exemptions from the Intermediate Examination.

The following candidates, who had attended the architectural courses and obtained First-class Certificates at the Universities mentioned against their names, were granted exemption from sitting for the Intermediate Examination, and have been registered as *Students R.I.B.A.*:—

- ADAMS: William Naseby [P. 1905]: St. Augustine's Vicarage, Shaw Street, Liverpool [*School of Architecture, Liverpool University*].
- AINSWORTH: John Cooper [P. 1902]: Arnold Hill, Gee Cross, Hyde [*School of Architecture, Manchester University*].
- CRUTCHLEY: Frederick Ernest [P. 1906]: "Linnevel," Orrell Lane, Aintree [*School of Architecture, Liverpool University*].
- ROBERTS: William John, M.A. [P. 1908]: c/o J. W. Beaumont & Son, 10 St. James' Square, Manchester [*School of Architecture, Manchester University*].
- WOOD: Herbert McGregor [P. 1908]: 125 Kingsley Road, Liverpool [*School of Architecture, Liverpool University*].

Final and Special.

The Final and Special Examinations, qualifying for candidature as *Associate R.I.B.A.*, were held in London from the 19th to the 27th November. Of the 121 candidates examined, 43 passed, and 78

were relegated to their studies. The names and addresses of the passed candidates are as follows:—

- [The initials 'P' and 'S' in the subjoined list signify "*Passed*" and "*Studied*" respectively.]
- ALLNER: James [*P*, 1902, S, 1905]; Sturminster Newton Dorset.
- ASH: Horace James [*P*, 1893, S, 1902]; 20 Congress Road, Nuneaton.
- BESWICK: Alfred Edward [*P*, 1903, S, 1904]; The Knoll, Swindon, Wilts.
- BOWNASS: James Everett [*P*, 1904, S, 1906]; 60 Norman Green, Esq., 50 Madeira Road, Streatham, S.W.
- BUCKINGHAM: Ernest Hugh [*Special Examination*]; 1 Upper King Street, Norwich.
- BUSH: Frederick Thwaites [*P*, 1904, S, 1906]; 120 Rodenhurst Road, Clapham Park, S.W.
- COLDWELL: Edward Smith [*P*, 1904, S, 1907]; 116 Chevening Road, Bromley Park, S.W.
- DAFT: William Austin [*P*, 1903, S, 1906]; 27 Jeune Street, Oxford.
- DALTON: Percy [*P*, 1903, S, 1904]; Home Lea, Buxley Road, Ainsdale, near Southport.
- DAYES: Horace Francis [*Special Examination*]; 14 Newgate Street, Chester.
- DEAN: William [*P*, 1905, S, 1907]; 5 Trafalgar Square, Chelsea, S.W.
- DENMAN: John Leopold [*P*, 1904, S, 1906]; Ingram House, Stockwell Road, S.W.
- FOSTER: Reginald Charles [*P*, 1900, S, 1904]; Newton House, Loughton, Essex.
- FRENCH: Harold [*P*, 1903, S, 1904]; 9 High Street, S.W.
- GRAHAM: Allan [*Special Examination*]; 15 Primrose Mansions, Battersea Park.
- GROVES: Christopher [*P*, 1900, S, 1905]; Chester-le-Street, co. Durham.
- HEALEY: Hugh [*P*, 1900, S, 1905]; 55 Mizzay Road, Rochdale.
- HILL: Thomas Harold [*P*, 1899, S, 1905]; Fernside, Hazelwood Road, Hale, Cheshire.
- HOSKING: Thomas Stanley [*P*, 1904, S, 1906]; Vaynoe, Grosvenor Road, Llandrindod Wells, Radnor.
- HUNTER: George Edward [*P*, 1905, S, 1906]; Wentworth, Gosforth, Northumberland.
- IXER: Sydney Henry Howard [*P*, 1902, S, 1906]; 71 Sisters Avenue, Clapham Common, S.W.
- LAY: Harry George [*P*, 1902, S, 1904]; "The Laurels," London Road, Wellingborough.
- MAJOR: William Paul [*P*, 1899, S, 1905]; 26 Pembroke Road, Clifton, Bristol.
- MOBBS: Sydney Wilfrid [*P*, 1901, S, 1905]; The Laurels, Oulton, Lowestoft.
- MOLE: Charles Johns [*P*, 1904, S, 1906]; 27 Diamond Avenue, Plymouth.
- MORLEY: Eric [*P*, 1901, S, 1905]; 14 Park Drive, Bradford, Yorkshire.
- NEAVE: Stacey Arthur [*P*, 1904, S, 1906]; Sydney, Australia.
- RIGG: William Arthur [*P*, 1903, S, 1906]; The Moulton Settlement, City Road, E.C.
- RUDDLE: Alan Wilfred [*P*, 1894, S, 1896, *Special Examination*]; 6 Long Causeway, Peterborough.
- SMITH: Charles Benjamin [*P*, 1902, S, 1904]; "The Acacias," North Hill Road, Ipswich.
- SURMAN: John Burgess [*P*, 1902, S, 1904]; 10 Yew Tree Road, Edgbaston, Birmingham.
- SUTCLIFFE: William [*P*, 1902, S, 1904]; 29 Wellington Road, Toddmore.
- SUTTON: Basil Hope [*P*, 1902, S, 1904]; Basildon, near Reading.

- SYKES: Frank [*P*, 1900, S, 1904]; 14 Chichester Road, Clontarf, co. Dublin, Ireland.
- THOMASSON: William Joseph [*P*, 1899, S, 1905]; 100, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

The following table shows the number of railways among the eighty relegated candidates in each division of the Final Examination:—

I. Design	40
II. Moldings and Ornament	71
III. Building Materials	24
IV. Principles of Housing	19
V. Specifications	44
VI. Construction (<i>Practical Studies</i>)	32
VII. Construction (<i>Theoretical Studies</i>)	28

Colonial Examination.

The following candidate passed the Colonial Examination qualifying for candidature as *Associate R.I.B.A.* held in Melbourne last June:—

- MORRELL, James Charles (Public Works Department, Melbourne, Australia).

MINUTES. IV.

At the Fourth General Meeting of the Institute, held at Sussex, 1908-09, held Monday, 11th December, 1908, at 8 pm. Present: Mr. Ernest George, *President*, and the Council, 29 Fellows (including 11 males) and 106 Candidates, 32 Associates (including 3 members of the Council) and 4 Hon. Associates, and several visitors. The Minutes of the Business Meeting held 30th November were read and found correct and signed as correct.

The deceased were announced as Edgar Peppercorn, of Bournemouth.

The following Associate, attending by the post, were then elected: viz. Stephen Bertram, Herbert George Jenkins, John Harold Symes, Alec Spence.

The Secretary announced that the following candidate had been nominated for the Council for election as Associate: viz. Edwin Hugh Woodcock.

A Paper by Mr. F. B. Spencer on "The Economics of Design in Building" (December 1908) was read by the Author, illustrated by lantern slides, and discussed, a vote of thanks was passed to him by acclamation.

The proceedings then closed and the Meeting separated at 10 pm.



FROM THE FRIZE OF THE PERIPTERON.

ARCHITECTURAL SCULPTURE. By ALBERT H. HODGE.

Read before the Birmingham Architectural Association, 6th November 1908.

FROM the earliest periods in the history of architecture the art of the sculptor has been freely made use of by the architect in so many ways and for so many purposes that it is not necessary to go into any archaeological description of architectural sculpture and its development from one period to another, but rather to select such pieces of sculpture, irrespective of style or date, as will best illustrate the various principles and ideas which ought to govern the successful execution of sculpture merged into architecture. So far as we know, the finest sculpture has been architectural, and has had allotted to it a part as important to the integrity of the whole composition as the column and the entablature. Hence it happens that most of our cherished pieces to-day are wanderers from their pediments, peristyles, niches, pylons, friezes, and metopes. That Architecture has been mother to the art of the sculptor we shall best appreciate when we consider that she gave it birth, guided its steps to the perfection seen in Greek work, and then sheltered and protected her off-spring during storms, earthquakes, and revolutions, and preserved it to us. We find, too, that architecture approaches nearest to perfection when the sister art has become so enveloped in style and character that it is impossible to say where architecture leaves off and where sculpture begins.

Let us inquire into this unity of the various parts of a fine work and see if we can discover from what it arises. It undoubtedly is fine sculpture well placed in a fine façade: sculpture which has the same motive throughout its parts as the architect had in his mind when he schemed the façade. This architecture in sculpture is what we ought to seek after—this relationship of simple surfaces to rich ones, of intricate and simple forms in true tone value, style, and execution with the other features. Then we shall have a thorough blending of the two—we might speak of it as the loss and resurrection of sculpture in architecture. And so it becomes of

primary importance to carry the characters of the surrounding features into our sculpture by using lateral and upright masses: also by finding the ground or wall, moulding, or whatever may be behind our ornament or figures through the mass, so that our enrichment may not get the appearance of being isolated. It must be remembered that our work, whether figure or ornament, is simply composed of a more intricate relationship of the same forms, the hollow, the round, and the plain surface which go to make up our mouldings—in fact the whole design. And it is essential to the successful result that we should look upon sculpture, not as a thing apart from our design to be considered by the sculptor only, but as an integral part of the whole.

It is evident that the treatment of this mass—pediment, frieze, niche, moulding, or whatever it be—presents an architectural problem as important as the treatment of the other features of our façade: perhaps more important, since the architect hopes to obtain by it the foil to his plain surfaces, to emphasise certain parts of the composition, and to lead and concentrate the mind of the spectator on these parts. To demonstrate this architectural quality in sculpture we may take the round moulding with the bead under it as decorated with the egg-and-dart and bead-and-fillet. The lines of the enrichment repeat the section of the moulding. The same holds good in all well-decorated mouldings. The foundation or motive of the enrichment ought to repeat, or at least to assimilate itself to, the section of the moulding.

The architectural basis of a sculptured frieze is admirably demonstrated in the cavalry frieze of the Parthenon, now in the British Museum, which represents the procession that took place every four years during the Panathenaic festival. The frieze when placed on the building started from the south-west angle, and ran east and north to meet over the pronaos, where the procession is shown arriving before the assembled gods, who are grouped in the centre seated, and who receive from the hands of the priest the Peplos, while on each side the maidens selected to work the sacred robe approach bearing religious offerings. The fundamental design is distinctly architectural, the whole composition being practically founded on the wave ornament, which gives that flow of lateral motive, that prancing movement which makes the frieze perform a distinctly architectural function, and at the same time by its play of line prove a valuable foil to the entablature and columns outside: each is in consequence strengthened in its effect, yet quite in harmony. I consider this work the most architectural, the most sculpturesque, that we possess. It embodies all the difficulties of relief work, solved with that apparent ease which is always so deceptive in the work of a master. We find the horizontal lines of the building repeated often in the heads of the horses, in the limbs, and in the flying draperies. The upright lines of the triglyphs are echoed in the horses' limbs and necks. All are interwoven, yet do not in any way hinder the running design the architect had in his mind. I should like to draw your attention to two peculiarities in the horses in this frieze. The lower bones of the forelegs are bent slightly—this doubtless was to accentuate the running design—and the muscles of the ribs of the horses are shown running in an opposite direction from those of the natural horse. This I cannot explain: perhaps the artist found this method of treatment suited his composition better.

In the metopes of the Parthenon, representing the battle between the Centaurs and the Lapithæ, we come upon one of the most marvellous inventions of the Greek sculptors, the Centaur. These works are of varying merit and not always up to the high standard of the other parts. Some writers account for this falling-off by the fact that they had to be carved *in situ* and not on the ground, and afterwards to be hoisted into position like the pediment work. I do not think this is so, if we consider how carefully the Greeks executed every part of an intricately draped figure, and carved perfectly parts which must have taken no end of time and care simply because the gods would see them. I believe the reason was that the best men were all occupied on the pediments and frieze. Phidias himself was giving most of his time to the statue of Minerva. Even although some failed to come up to the standard of the

others, the metopes as decorated in the Parthenon give us an example of the coffer filled with sculpture in high relief. The effect of these dashes of richness, alternating with the triglyphs, and the whole bound top and bottom by mouldings, must have been very striking and decidedly architectural. And, curiously enough, this beautiful arrangement of severe and plastic forms alternating is one which is seldom made use of by the modern architect.

Intricate forms and masses in our work are questionable. Should great richness be required, let us decorate a simple motive: the main lines of our scheme will then be few, good in construction, and architectural. The predominating lines of most of the works of the masters we find on analysis to be based on geometric forms, the pyramid, the square, the circle, the lunette, and others. If we work on this principle it is surprising to what extent of interest and refinement we can carry our work without becoming petty and confused. All our detail falls into its place; and no matter from what distance or position our work is looked at, it is always in scale. How well this was known to Phidias we can understand when we consider the Fates from the pediment of the Parthenon: here we find this principle carried to perfection. These charming figures grouped together are all freely draped with the richest drapery, yet without losing breadth of mass or the magnificent outlines of the figures themselves. All this intricacy, simplicity, richness, and plainness we can trace to architectural knowledge: the division of the masses of drapery to give flow of line as against severe parts, and opposition of direction of folds of drapery to give richness of light and shade. The using of horizontal folds where depth of shadow is required, the mapping out of the whole structure and detailing like an architectural front—all this combined gives refinement of scale and purity of style. The figures seem to breathe, so masterfully are they treated.

In another work of the master, the Jupiter at Olympia, constructed of ivory and gold, we can comprehend the grasp Phidias had of the plan of his figure when we read that various battle scenes were represented carved round the edge of the sandals on the feet of the seated Jupiter. To such a height of elaboration it is only possible to carry work successfully when every part is in scale and the whole well planned.

These works are so impressive by their solemnity and grandeur that one wonders sometimes if, after all, they are the work of mortal men. Can we think of Phidias and his assistants knocking off work for the day, dusting the chips from their clothes and saying "We shall have Ictinus, the architect, here to-morrow. We must take the front of our scaffold away so that he may see our work"?

We now come to the technical part of the sculptor's work: the treatment of various materials, such as the figure, its draperies, and accessories of ornament, leafage, shells, armour, and other materials and implements made use of in our work in order to acquire that sculpturesque quality without which our work is too realistic and insipid: the use of the life model becomes too apparent: nothing appears stony—all looks too much like clay modelling slavishly imitated in stone. This is undoubtedly the outcome of a method of training which I think is open to criticism. The sculptor is first set to draw and model from the antique before he understands what is the meaning of the word sculpture. Then when he can faithfully copy, by aid of plumb-line, calipers, and all sorts of mechanical devices and little pellets of clay, he is put into the life class. There he remains till he becomes a full-fledged sculptor—in other words, a student who can faithfully reproduce life, but knowing little of any architectural principles of design. He learns all manner of tricks of texture in clay—in fact, the ways and means and time given to get these surface-dressings occupy most of his time. This is surely wrong. He becomes a clay modeller, and when he gets a job to do he is surprised to find that his carvers cannot get the effect the work had in clay in his studio. How could the result be otherwise? The quality we desire most in our work is that it should have the feeling of being cut out of the solid. It should never lose its stony feeling.

never be clay-modelling in stone: it must be materialistic. The same remark, I think, holds good with reference to bronze work, which also ought to possess this sculptural feeling. This was undoubtedly the great secret of the antique work. The old workers had a plentiful



EGYPTIAN GRANITE FIGURE—KING EKERHEN.

supply of fine marble, and they were trained to cut their work out of it, and not to model it in a soft material; doubtless they may have prepared wax models, or even clay models, but they forgot them in marble. Michael Angelo preferred this method. He made small studies, and then set to work on the marble. Alfred Stevens and Thorwaldsen likewise prepared half-size or full-size models before they started in stone or marble: but they prepared them in plaster, and seldom in clay, and so got their stony feeling. Working in this way you can scarcely fail to get the desired quality, as every cut is a true plane, and not a loose mass such as you get when you squeeze a pellet of clay. Your work becomes simpler in line and mass. This was undoubtedly the secret of the grandeur of the Egyptian granite figures and of the Assyrian work. Think of those magnificent slabs in the British Museum representing a lion hunt cut in slaty stone. They are purely drawings in stone. The accuracy of line arrived at by cutting gives to them that decorative and sculptural quality to a high degree. I should also like to draw attention to the Assyrian lion in the British Museum, which to my mind is superior to either Barye's or Stevens's lion in its architectural and sculptural treatment. The masterly way in which the lines of expression about the mouth and nose convey the leonine impression is more forcible than either of those two masters' examples, and impresses upon us the value of architectural design and sculptural rendering. The fact that the lion has five legs we

can forgive, the intention being that he should look balanced from either side: it shows us how much the Assyrian sculptor sought after this architectural quality in his work, even at the expense of truth to nature.

It sounds strange, but it is true, that most of this early work possesses to a degree of mannerism and archaicism the very quality which is lacking in our work. This, as I have already pointed out, is owing to the lack of the use of the chisel from the first. The antique sculptor had bigness from the start: his modern brother is worried too much by working in a soft sticky material, subject to all kinds of pranks in light and shade which mislead him, and the tendency is to put in detail which he would omit were he working down instead of building up.

Sculpture is undoubtedly a limited art: all tricks of light and shade attained by ragged surfaces are bad. Should it be desired to get richness, then let it be got by the use of more



ASSYRIAN RELIEF

intricate but true form. It is a questionable practice to play upon the imagination by leaving certain parts unexecuted. This is not truthful; it is a trick resorted to by modern French sculptors, and is outside the limits of the art of the sculptor, which ought to be complete in itself and in the relative values of its parts, and not admit of any rough or unexecuted part. Consider how ridiculous a building would look left half finished in order to give effect to the completed part!—perhaps the client might object and retaliate by leaving his cheque half written when paying his architect!



ASSYRIAN LION

Work which can only be looked at in one light is full of error and cannot be truthful throughout. Think of the test to which we put the Greek frieze. On the building it was seen in reflected light only. Now in the British Museum we see it in a top light: still the work is so truthful that we cannot tell, judging from its execution, what light it was carved for.



VENUS OF MILO.

In speaking of true form I do not mean exact representation of life form. I mean sculptural representation. This stony impressionism is seen admirably in the Greek treatment of hair; it does not represent every hair in the small liney manner we sometimes see, but it is given in a decorative style in masses which represent the relationship of hair to flesh, without the artist losing his sculptural feeling. This is seen all through the best work. The Greek, the Roman, and the Gothic sculptors give us a stony impression in all things, conveying to our mind a materialistic rendering of them, but which is found on close inspection to be a representation true to the materialistic as well as to the sculptural sense.

In the Venus of Milo we have such a combination: no such woman ever breathed: still, we feel that in this work everything is right—the figure stands in a dignified manner, her feet firmly planted on the ground, figure, drapery, and hair all treated in the right way, nothing insipid, petty, or confused, but healthy in motive, noble, and such a woman as would be the goddess of motherhood. Here is a keynote for our work.

The Gothic sculptors were so familiar with this architectural impressionism that it became a fault with them as compared with the Greek sculptor. They allowed this love of the Gothic or vertical spirit to predominate to the detriment of their figure: still, in the figures in Chartres Cathedral we find work quite Greek in character, architecturally pure and beautiful. In fact, all good sculpture, no matter what style, is governed by the same principles. It is simply the same story told in a different language. Even wrong form when put in with assertion and sculptural rendering will carry conviction, and will be more satisfactory than the truer form put in weakly.

Fine allegory in our groups of sculpture is desirable, and is one of the plenishments which give our work interest even beyond its merit. It requires a master hand to know just the exact amount to use. Without good design and sculptural rendering it becomes confusing, and its various and multitudinous symbols tend to overcrowd and so congest our composition that, despite our marvellous and poetic meaning, the *tout ensemble* is unsatisfactory. The weak artist generally hides his shortcomings under a cloak of allegory. My opinion is that much of the poetic meaning which we attribute to some of the antique masterpieces was never in the mind of the artist, but was tacked on to his work after he had laid down his chisel and mallet and gone to rest from his labours.

Still, our work must have its meaning—the character of the building will suggest this—

but it must be told architecturally and clothed sculpturesquely. It is a mistake, I think, to repeat such ornaments as were specially applicable to the old work and do not apply in meaning to that in hand. Surely by the use of acanthus, ribbons, fruits, and modern trophies that we can design by representing machinery, ships, agricultural implements, scientific instruments, and all manner of tools and tackle, we can make our ornament as interesting and architectural as the antique. Think of our express-engine, for example; it is full of life, lateral movement; every line expresses its purpose: no superfluous material, all steel tendon: a veritable greyhound, of magnificent dignity; and how impressive and majestic it is as it stands in the station, rejoicing as a strong man to run a race—sculpture in steel.

We lack not food for ornament, and by a spirited use of it we can make our building bristle with interest and vitality, and say something not yet said even by the Greeks, always bearing in mind to build our art structure on what has been done before. We shall thus unconsciously impress on our work our individuality, and advance with our line of communication clear, and not as a company of rovers who know not whence they come or whither they go.

Reverting to the Parthenon, do we not find here a dictionary of the proper manner in which sculpture should be used in architecture, embracing as it does all manners of the art of the chisel—the column, the flute, mouldings, and enrichments: the sculptured frieze, the coffer, or metope, the fully enriched pediment—the whole forming one noble casket or shrine, worthy to receive the consummation of Greek art in Phidias's statue of Minerva, of which at the best we have only some rude sketches which doubtless have little likeness to the original? Of the pediments we have more left to us.

I should like to show you how well Phidias adjusted these various qualifications which I have been endeavouring to point out as being necessary to good work. Of the two pediments I prefer to deal more fully with the eastern, being the one of which most remains, although we know more about the western from the drawings of the French artist Carrey, who visited and made sketches of this work about 1674, shortly before the explosion. The western pediment represented the contest of Athena and Poseidon for the land of Attica. Of this there remain but a few pieces, which are now in the British Museum, and they are shown in such a manner as to render it almost impossible to reconstruct in one's mind anything like the effect of the complete work. The fragments of Minerva and Poseidon ought to be placed in their true relative positions in the pediment, and not shown as they are, resting on a block of marble at the bottom of the pediment, which ruins any conception to be gathered from such fragments.

The eastern pediment, or that over the main entrance, represents the birth of Minerva. Mythology asserts that the goddess was born from the head of Zeus, Prometheus being the practitioner, with the aid of a blow of his axe—surely a subject before which any sculptor would pale. We have no idea how Phidias treated this problem, but I think we may rest assured that, being the most important point in the whole scheme externally, it was something very fine. The scene is in Heaven: the time sunrise, as shown by Helios, the sun, rising with his team from the sea at the left corner; while Selene, the moon, descends with her chariot at the other. How admirably these two subjects fit and fill the awkward corners of the pediment—truly a master touch. I would here point out a slight imperfection in the fitting of the horse's head in Selene's team; a small check had to be taken out of the under jaw in order to secure fitting where this part overlapped the plinth, so that the jaw is not complete. I have no doubt the artist would tell us that as the plinth represents the sea this part is only submerged. The strappings on both of the teams were in bronze, the plugs for fixing the bridles being still there, and the drill holes in the arm of Helios for fixing the reins. Facing the rising sun is the so-called Theseus. The suggestion of Brunn that this figure represents Mount Olympus illuminated by the rays of the rising sun is certainly a very beautiful idea, but we cannot verify it. I consider this figure the finest representation of the

male form in sculpture: nothing that I know rises so high. It alone would be a worthy gem to occupy the central position of any temple or shrine of art we could make. To the Greeks it was, after all, only one of the items which went to complete the casket. Of the true identification of the rest of these figures we know little but we can still study the originals,



THE PARHENON—FRAGMENTS OF EASTERN FLOWERS

even though their distinctive attributes are gone. It matters not so much what they represented as what the other qualities are. Next Theseus are seated two female figures, fully draped, treated in a quiet, dignified way, their draperies echoing the vertical and lateral motive of the architecture below. The two form a magnificent foil to the flying Iris, the messenger of Juno, conveying the news of the birth of Minerva. In the Iris we possess the last



THE PARHENON—FRAGMENTS OF EASTERN FLOWERS

word in flying drapery. This figure is undoubtedly the purest in style and movement of any flying figure of which I have any knowledge. The whole architecture of the figure expresses the intention thoroughly. The fine but simple folds give the forward movement of a figure in a celestial sky, and without the disturbing influence of wind. The Fates, of which I have

already spoken, balanced these figures on the other side. I have no doubt there were other figures in this pediment which have not yet been found.

Relative to the disposition of the various parts of this pediment I would bring to your notice the magnificent transformation from action in the central feature, the birth, the flying Iris, and the figure next her, showing surprise by the raised arm, to the calm seated figure Theseus, and the passive Helios with his team. On the other side the same graduation takes place. This is truly a most beautiful passage, carrying the eye from the sides to the central feature, "The Birth of Minerva," which was the culminating point of the whole facade. All these magnificent marble figures were decorated with bronze. Horses had bronze trappings, female figures had bronze or gold leaves or symbols round their heads, and buttons at the points of the draperies. On the arm of one of the Fates there are distinct traces of a strap or bangle, also a drill hole on the top, evidently for fixing the same, or possibly for fixing a bronze pair of shears, as would be necessary if the figure represented one of the Fates. I would further remark, with reference to the colour which was undoubtedly applied to these figures now in the British Museum, that upon close examination I find the colour used was a sort of earthy brown, and it was used in darker tints the deeper it was in shadow. In some of the folds of the drapery of the Fate the colour is still in perfect preservation. I do not consider that this colour was applied to flesh and draperies with any intention on the part of the artist to convey materialism, but purely to get the full values for the work. I can easily imagine that, with the marble cut so thin in parts as to be little more than the actual thickness of cloth, and placed as the figures and draperies were to receive the full blaze of the sun, the light would simply pour through them. They would hold little shadow and have no depth. When we consider this we can well understand the Greeks resorting to colour to render their work opaque and to kill penetrating light which robbed them of their hard-earned effects. This I think to be the true cause of the colour used, and not the desire to imitate flesh and drapery in a cheap manner, so as to undo all their strivings after a true and sculpturesque effect. In fact I think it is not flattering to the Greek artistic character to think that they had any other intention in view than the one I have just suggested. The Greeks used colour on their marble, as we use it on our plaster, in order to kill reflected light and give depth to the work.

I will now deal with the placing of sculpture on our buildings. It is always advisable to focus the values of the enriched portions so that no two compete; but one part ought to dominate the whole and be the centre or keystone of the architect's motive. How admirably Phidias followed this plan we see from the pediments of the Parthenon. It is dangerous to lay down any principle in art, but from a close study of the antique work, figure and ornament, in sculpture, I find that the principle of putting enrichment in the shadow or half tones is always a sound one, as instanced by a fully enriched cornice with its modillion blocks, coffers, egg-and-tongue, bead-and-reel, and dentil blocks all in full shadow and half tones. This treatment affords a depth of shadow and adds a mystery to the whole effect which could not be otherwise obtained. The fluted column is another example of how well-applied enrichment adds to the depth of shadow. The Parthenon fully demonstrates my point: here we have the Panathenæic processional frieze which was never seen in any but a reflected light from the steps below. It is a touch of the master architect, a note of reflected enrichment so exquisitely carried out that we may take it into broad sunlight and find it still without blemish, all to be seen in a subdued reflected light from below. So much value the architect placed upon getting interesting detail in his shadow. What magnificent depth too all this must have given to his colonnade. I would suggest that the much-discussed problem of the lighting of the interior was just such another master-stroke as the frieze outside. I do not think the cella was ever intended to be lighted other than by artificial light or such light as was

admitted through the doors. Let us consider the effect as we approach and enter the building. First we have the main lines and mass of the building, the metopes and pediments all in full sunlight. The portico and side colonnade throw deep shadows. As we draw nearer we see the Panathenaic frieze in the deep shadow with the dashes of light from the bronze reins and bridles of the horses: then the frieze itself in its reflected light is apparent, and will hold our interest until we are in the portico: and as we enter the building the light becomes dim and more mysterious, and the colour decoration, which to our eyes seen in the strong light of day appears harsh and crude, takes its true tone. As we penetrate further we enter the cella and behold the Minerva, constructed of ivory and gold: seen in this dim and religious light, perhaps with hanging gold lamps like stars against a blue celestial ceiling and scintillating on her armour, such an impression it would be impossible to create were the building lighted by direct light admitted through the roof or otherwise.

Of the statue of Minerva we know little beyond such impression as we may gather from the statuette found at Athens and the Roman copy also found at Athens, both of which I fear give but a sad rendering of what must have been the work of a giant in sculpture, and doubtless was a worthy gem to be held in such a casket.

I am afraid I have wandered rather far into the depths of my shadow theory. I hope, however, it may be found interesting, for the subject of lighting the cella of this building has always been a fascinating one, and I have no doubt that any theory—even a theory of darkness—is of interest to the architect. The principle of putting interest in the shadows is one that painters avail themselves of freely. Rembrandt was, perhaps, the strongest exponent of the principle. I am confident that architects and sculptors of to-day do not consider this important fact sufficiently. We carve and enrich for direct light only, and so lose the most valuable foil, reflected light, to give to our work its full depth and interest. The indiscriminate application of sculpture is wrong. Sculpture should never be an excrescence. Some advocate the placing of it high up on the building, others low down, others on the skyline. Any position is right when well used: but it is absurd to cut and alter the proportion of a figure placed high up, as is sometimes done.

When we see a bricklayer on the scaffold at the same height as our figure we are perfectly satisfied with his proportion, and have no desire to pull his leg or take one cubit from his stature. Let us leave him alone; he is quite happy, and looks his part. So with our sculpture, we must remember our figure should be as architectural as the adjoining base or capital: it ought not to be made to appear to take any interest in the street below, but should attend to its own business in as dignified a manner as possible. Sculpture ought not to become heavier and coarser the higher up it goes. As with the orders of architecture, the lighter should surmount the heavier. Let us first get our silhouette correct, then the structure of the mass: the detail will follow as a matter of course.

Our niches ought to be roomy, so that we get reflected light at the back of our figures, and when we have to use the portrait statue in our work it ought to come under the same principles, architecturally and sculpturally, as other decorative work. Lastly, our sculptors ought to study architecture, and make themselves familiar with its principles of design, its disposition of planes, spacing, enrichment, and constructive foundation. The sculptor's work will then become decorated construction, and not constructed decoration. His work will be in truthful harmony with the rest of the façade, and not have the appearance, as I am afraid is too often the case, of looking like a stray child from its mother, Architecture. We have only to think of the Parthenon to comprehend this thorough understanding, this unison of mind and motive, which is essential to the successful result. Letinus and Phidias were truly brothers in a common cause. Like them let us fuse our architecture and sculpture by the flame of truth, that we may have one art—Architecture.

HERALDRY IN RELATION TO ARCHITECTURE.*

By E. BERTRAM KIRBY.

AMONG the numerous allied arts and sciences which have been pressed into the service of architecture in the course of its development in Europe, heraldry occupies a peculiar and distinctive position. Its claim upon our notice in this connection is founded, not merely upon its intrinsic interest, but still more upon the unique opportunity it offers to the architect for the application of beautiful and intelligent ornament. However ignorant or intolerant the observer may be of its meaning, and of the principles which govern its proper application, he can hardly fail to appreciate its obvious importance as an architectural accessory. Since, however, the intention of this Paper is to present the subject of heraldic ornament, not as a heterogeneous collection of fantastic and meaningless symbols, but as the most intelligent (and, to the initiated, intelligible) form of ornament which has been applied to architecture, it will be necessary to attempt some elementary explanation of its origin, meaning, and use. The necessity of this arises from the average man's complete ignorance of the elements of this subject. It is not proposed to discuss how far this attitude is commendable in the general public, but it seems at least regrettable in the architectural profession. There is no doubt that architects, especially those who have any pretence to the title of archaeologists, are generally expected to have at least a bowing acquaintance with this science. It may be urged with some reason that the occasion for the use of heraldry in modern architecture is somewhat rare and remote—though perhaps this is mainly due to the architects themselves. But when the almost inevitable occasion presents itself for an architect to employ heraldic ornament on his buildings, he does not show to the best advantage when he is compelled to admit his ignorance of the subject, or, worse still, when he plunges blindly into its mysteries and defaces an otherwise noble building with heraldry which is meaningless and childish, or which labels the innocent and unsuspecting client

as a craven or a bastard. It may therefore be instructive to see how vulgar and absurd the misuse of heraldry may become, and, on the other hand, what a singularly beautiful and effective accessory to art and architecture it is when employed in its proper and legitimate application.

We may consider the subject under three aspects : (1) Its origin and meaning, (2) its conventional use in art, (3) as an architectural accessory.

The origin of heraldry is a military one, and is to be found in the signs and symbols which individuals and tribes of almost every age habitually carried into battle, partly in order that their identity might be more easily distinguished by their followers, and partly to instil fear into their opponents. But it did not begin to assume the form of a science and become subject to rules and conventional usage until the time of the Crusades, though the mediæval heralds used to indulge their flights of fancy by ascribing imaginary arms to all the principal personages of history and mythology.

It was of course peculiarly important in the middle ages that a knight should be easily recognisable in battle, since his face was covered. It therefore became the custom, directly closed helmets came into vogue, for the knight to bear upon his shield and surcoat some device by which he might be distinguished. The device naturally came to be inseparably associated with an individual and his family. Hence arose some of the main principles of heraldry : first, its honourable character, since only those of gentle blood could bear arms, owing to the fact that they alone were in authority and required a distinctive mark ; secondly, its hereditary use, since the heir to a man's lands and power would naturally inherit his arms also ; thirdly, the necessity of the device on the shield being simple, easily distinguishable, boldly drawn, and peculiar to himself and his family, so as to obviate the possibility of mistake arising. The importance of this may be judged from two historic instances. The defeat of the Lancastrians at the battle of

* Based on a lecture delivered to the Liverpool Architectural Society on 9th December 1907.

Towton was mainly due to the confusion between the star of the De Veres and the sun which the House of York used as their badge. One of the most famous lawsuits of history, known as the suit of the Bend Or, which was tried before the King and John of Gaunt, arose from a dispute between Lord Scrope and the Grosvenors as to which had the prior claim to the arms they both bore.

The various parts of the full heraldic insignia should first of all be distinguished, together with their use and significance.

In the first place, there is the crest. It should be borne in mind at the outset that, contrary to the generally accepted idea, the crest, though nowadays the most widely used portion of the achievement (as it is called), is by no means the most important. Crests, as such, came into general use at a considerably later period than the arms on the shield, and were almost unknown until the tournament became an established institution. That they were comparatively unimportant is due to the fact that their use was almost entirely ornamental, and, so far from affording their wearer any practical protection, they were even liable to become a source of danger to him in a hand-to-hand encounter.

The crest was made of some light strong material, securely fastened to the helmet. It always faced towards the front of the wearer—a fact which should not be overlooked in drawing crests in con-

junction with helmets. They should also, as far as possible, be portrayed in such a way that they could really be worn without falling off. The object which constitutes a crest is never represented by itself, but as resting on or within a crown, a cap or mantling, or, more usually, the twisted wreath of the mantling.

An admirable example of a crest may be seen on the helmet of the Black Prince above his tomb in Canterbury Cathedral. The helmet is surmounted by a cap of maintenance upon which stands the lion of England.



FIG. 12. BLACK PRINCE'S SURCOAT.

The helmet upon which the crest was worn varies in heraldic art, though not in actual use, its shape and position representing the rank of the wearer. The horrible dog-faced helmet which the fashion of last century decreed for the achievements of gentlemen has now been almost universally superseded by the beautiful old tilting helmet, a good example of which is also reproduced here. The Prince's surcoat embroidered with his arms, which was worn over the armour, is a very rare specimen of that garment. It was the origin of the term "coat-of-arms."

The mantling, or mantlet, was originally a silk veil to protect the helmet and shoulders from sun and dust in hot climates, but in later times it was cut into long, ornamental folds. The extravagance of this fashion ran to such excess that it resulted in the death of Sir John Chandos, the famous general, who tripped on his mantlet in battle and was killed before he could rise. The accompanying figure from the tomb of Aymer de Valence in



FIG. 13. AYMER DE VALENCE'S HELMET.

junction with helmets. They should also, as far as possible, be portrayed in such a way that they could really be worn without falling off. The object

Westminster Abbey clearly shows how the mantlet was originally worn. We shall have occasion later to see the decorative possibilities of this feature which await the artist.



ARMOR OF THE NORMAN PERIOD.

The use and origin of the shield are so obvious that they need not be particularised. The modifications in its size and shape are, however, worthy of note, especially as they have a considerable influence on the application of heraldic design to architectural requirements.

The first shape of shield which need concern us is the Norman. This was very long, pointed at the lower extremity, and rounded at the upper, and sufficiently large to cover the entire body. It may be remarked that as body armour became perfected and a better protection to the warrior, the use and size of the shield proportionately decreased, until what is known as the heater-shaped shield was evolved, so called from its resemblance to a flat-iron. This is the most usual and convenient form of shield to accommodate simple devices, or charges, as they are called; but when the custom of quartering arms came into practice, a squarer form of shield was found more suitable. In later times we find that both the outline and surface of the shield underwent considerable alteration. Flutings were introduced on the shield, and, especially abroad, its outline assumed most eccentric and impracticable shapes, until in the seventeenth and eighteenth centuries, when this art reached its lowest ebb, all semblance to a shield was entirely lost.

We now come to a very large subject, which exigencies of space compel us to touch upon very lightly—namely, the devices or charges borne on the shield, and their respective tinctures or colours.

The consideration of these points is so bound up with the conventional application of heraldry to art, or rather art to heraldry, that we shall find this a suitable opportunity of introducing that side of the question. With regard to the colours which are most commonly used in heraldry the more important are:—Gold, or *or*; silver, or *argent*; red, or *gules*; blue, or *azure*; green, or *vert*; purple, or *purpure*; black, or *sable*. There are also various furs, of which the commonest is ermine, composed of black ermine spots on a silver ground.

Of these gold and silver are classed as metals, and the others as colours, with the exception of ermine, which follows the rule of the metals. The rule with reference to these tinctures is that a metal should never be placed directly on a metal, or a colour on a colour.

When colours cannot be painted their respective tinctures may be indicated by lines or dots in various arrangements. This method is known as "tricking." It is not, however, suitable to stonework, and its use is to be deprecated when it is possible to avoid it. Care should be taken that the small grooves formed by the mason's serrated chisel do not give the impression of tricking where it is not intended.

It is hardly necessary, or even possible, to attempt to enumerate and explain the charges



ROBERT D'AVER, EARL OF OXFORD.

which can be borne on a shield, as they include almost anything in the world, animate or inanimate, from an angel to a soup-plate. It is not so

much their classification as their representation that need concern us. One point, however, should be particularly noted by architects, viz. that when heraldry is represented in stone or a similar material, and it is impossible or undesirable to differentiate the charges from their surroundings by means of the contrast of colour, they should be carved in relief. The beautiful monumental effigy of Robert de Vere not only illustrates this expedient but is an admirable example of the treatment of the flat surface of a shield which is not well covered by charges, and which, in the absence of colour, becomes devoid of interest. In this particular instance, where the shield is divided quarterly, the only charge on it is the mullet or star which is placed in the first quarter, and the remainder of the shield is left blank. This has, however, been relieved by the introduction of diaper. It should be noted that the pattern of the diaper is purposely designed to be small in size and in low relief, so as to obviate any possibility of conflicting with the charge, or unduly obtruding itself to the detriment of really essential details. The change in colour is also indicated by an alteration in the pattern of the diaper, and the division is accentuated by a thin line. This division of colour may also be suggested by making the two surfaces on different planes.

But perhaps the most important point to be observed in the artistic rendering of heraldry is the



ARMS OF PARIS.

manner of drawing the charges on the shield. Inanimate objects present least difficulty, but even they require considerable skill. They should

always be drawn with boldness and refinement, and should be so arranged as to adapt themselves to fit the space which they occupy. However conventionally the charge may be treated, there should



FIG. 1. D. DELLA ROBBIA.

never be occasion for doubt in the mind of the intelligent observer as to the object which it is intended to represent.

Animate objects in heraldry are, however, a very different matter, and there are very few artists who can draw them at all tolerably. To achieve success in this line the artist must balance realism and conventionality most delicately, not aiming at fidelity in reproducing the animal as it really exists, but rather suggesting, with perhaps a tendency to exaggeration, its chief physical and temperamental attributes.

To illustrate this distinction we may compare two renderings of lions in heraldry, in one of which the artist has attempted fidelity to nature, while the other is frankly conventional. The first is a medallion of Della Robbia pottery, which forms an admirable medium for the effective display of heraldic art. It will at once be seen, however, that the obvious effort to follow nature in the drawing of the lions inevitably produces an effect of incongruity, inasmuch as it emphasises the unnatural and gymnastic attitude of the animals which the conventional method would never have suggested.

On the other hand, the conventional figure of the lion rampant is quite free from these disadvantages. It is true that the authorities at the Zoological Gardens would view such an animal with considerable suspicion, but, nevertheless, it

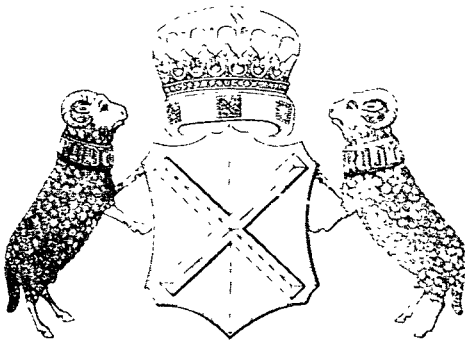
is impossible to remain in doubt for a moment as to the identity of the animal. It is instinct with leonine qualities, the embodiment of nervous strength and a certain ferocious dignity. More-



LION PASSANT.

over, it is a decorative object, and admirably adapted to the shape of the shield. Similarly the heraldic deer is the embodiment of grace and agility.

Heraldic animals are not always confined to the shield itself. They are constantly used as supporters, as the rams which support the shield of



ARMS OF THE ABBEY OF ST. ALBANS.

St. Albans Abbey. This shield is from the tomb of Abbot Ranryge in St. Albans Abbey, and it may be remarked that the rams with the letters R Y G E on their collars are a punning allusion to his name. This practice of punning is extremely common in heraldry, and is probably the only excusable and justifiable occasion for its use. It

should always be remembered that the main function of supporters is to support the shield. Among the monstrosities of taste perpetrated in the eighteenth and early nineteenth centuries it is not uncommon to observe the lion and the unicorn, instead of supporting the Royal Arms, feebly lying down behind them. Supporters are now almost entirely confined to the arms of royalty, peers (but not all), and some corporate bodies. Their decorative possibilities in art are obvious.

The accompanying photograph of the Royal Arms from the Victoria Memorial in Birkenhead illustrates an attempt to adapt some of these principles to modern requirements. It will be observed that the lions passant, although conventionally treated,



ROYAL ARMS. VICTORIA MEMORIAL. BIRKENHEAD.

are full of movement and vitality, and the fullest advantage has been taken of the space at the disposal of the sculptor.

The rules which govern this science are so extremely exact, and absolute fidelity to detail is of such paramount importance, that the artist has very little scope for original treatment. There is, however, one particular in which his individuality may assert itself, and that is in the decorative treatment of the mantling. To appreciate the really magnificent effect which can be obtained in this way one has only to refer to the excellent work of the designers of the sixteenth and seventeenth centuries. Albert Durer, whose arms are here reproduced, fully recognised the decorative possibilities of heraldry, and his work is still unsurpassed for its virility and beauty. It is a

matter for congratulation that a strong revival in heraldic art has sprung up in recent years, and its present exponents are by no means unsuccessful in emulating the beautiful productions of the past.



VECCIO DI GIORGIO'S ARMS.

If mantling is to be used with effect in this way it must exhibit a suggestion of inherent life and vigour, twisting it into fantastic shapes as if blown by a strong wind. It should never be lacking in that nervous strength and certainty of line which can only be paralleled by Early English floral carving.



SHIELD FROM CESENA.

The arms from a palace in Cesena, carved in Istrian stone, are an excellent instance of heraldic stonework full of life and vigour.

A world-famous example of the application of heraldry to architecture occurs on the exterior of the Palazzo Vecchio at Florence. The shields, which are placed in the recesses of the projecting arcading, form not only a bright band of ornament, in pleasing contrast to the severity of the wall surface, but also convey in symbolism the history and achievements of the City—surely a more suitable and intelligent form of decoration than meaningless swags and bullocks' skulls.

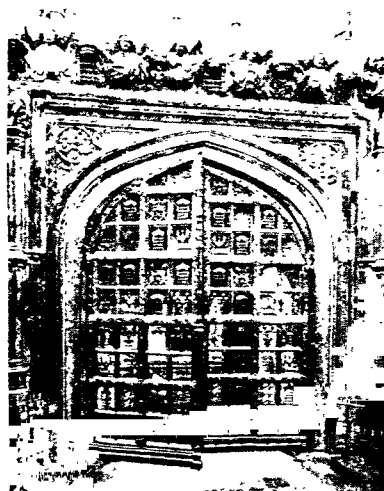
But it is by no means necessary to refer to foreign instances of this art when England is so rich in them. Westminster Abbey alone is a storehouse of heraldry. Not only are the memory and honours of the dead thereby perpetuated to posterity, but



MAZEBOURNE, 1501-1504.

the structure itself is enriched with the heraldic insignia of its builders and donors. Conspicuous among them are the devices which form the pierced panels in the magnificent bronze doors of Henry VII.'s chapel. These doors were designed by Torregiano, and executed by him or under his direction, and are the finest examples of heraldic metal work in England. The panels are appropriately filled by heraldic badges in pierced bronze, the Beaufort portcullis (which appears in the arm of Westminster), the falcon and letter 'L' of York, the entwined roses of York and Lancaster, and the royal monogram. No better instance can be adduced of the immense historical value and interest which heraldic decoration of this description adds to an object beyond its more intrinsic

beauty or utility. In the south aisle of the same chapel is the singular and beautiful tomb of the king's mother, Margaret Beaufort, Duchess of Richmond. This is also the work of Torregiano,



TOMB OF MARGARET BEAUFORT, DUCHESS OF RICHMOND.

and is remarkable for the extraordinary mixture of Gothic and Renaissance details. The recumbent effigy of the Duchess is in gilt metal, and lies in a Gothic niche with a raised and crocketed canopy, the whole design being an attempt to translate into high relief the flat designs of the ancient brasses. The tomb itself is frankly classic in character. It



TOMB OF MARGARET BEAUFORT, DUCHESS OF RICHMOND.

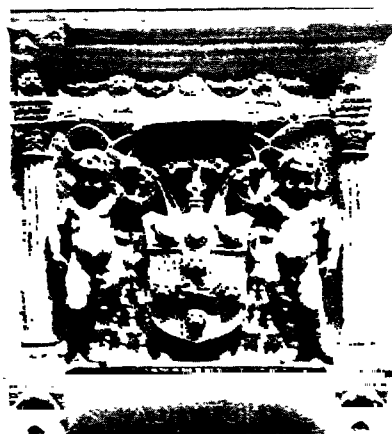
is made of touch-stone, the shields and ornaments being of applied metal-work.

Another beautiful example of the same period is probably familiar to most of us in the sculptured arms of Cardinal Wolsey at Hampton Court

Palace. Their peculiarly bold and decorative treatment is especially admirable.

But heraldic decoration must always lose much of its best effect when it lacks its appropriate colouring. For this reason it is seen to the best advantage when displayed in such materials as stained glass, mosaic, paint, or enamel. The mediæval craftsman achieved the highest success by the use of the last-named method, and the tomb of William de Valence, Earl of Pembroke, is to these days an unequalled example.

Perhaps the medium in which we are most accustomed to admire the finest effects of heraldic decoration is that of glass. It would necessitate not a Paper, but many volumes, to contain an adequate account of heraldic stained glass. A large

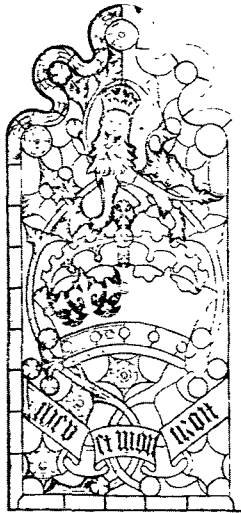


ARMS OF CARDINAL WOLSEY, HAMPTON COURT.

book has indeed been written on the heraldry of York Minster alone. We may, however, content ourselves with citing two instances. The first is the work of Albert Durer in the north aisle of Cologne Cathedral, which is unsurpassed for vigour of design and splendour of colour. So fresh and brilliant is the effect of the glass that the windows appear not only to transmit the sunlight from without but to possess an immanent radiance of their own.

With the second we are probably more familiar, viz. the heraldic glass in the windows of the Houses of Parliament, which is probably the best of its kind in England. Quite apart from its decorative quality, which is of the first order, its historical significance raises it to the highest grade of intelligent ornament. The spectator who stands

before Pugin's great armorial window at the end of Westminster Hall has before him not merely a magnificent work of art but an epitome of the history of England. A reduction of one of Powell's original cartoons, which he executed under Pugin's supervision for this great work, is



STAINED GLASS HOUSES OF PARLIAMENT, WESTMINSTER.

here reproduced. It should be noted that not a single line of the ornament is meaningless or inconsequent. There is no "padding." To anyone with a knowledge of heraldry every detail is important and pregnant with significance.

There is hardly an occasion in ecclesiastical, public, or domestic architecture into which this

beautiful form of decoration may not be appropriately introduced. What an encroachment from senseless and meaningless ornament does it not offer to the craftsman, provided his attention is directed to this science? But it has shared the fate of all things which require accurate knowledge and discrimination in their use. It has incurred obloquy and disregard through the gross misuse to which the ignorant and vulgar have subjected it. To appreciate the surpassing effects which its proper and legitimate application can produce in the hands of capable and conscientious artists, "Si monumentum requiris, circumspice."

In conclusion, it may not be out of place to add a word with reference to what may be termed the ethics of heraldry. Much of its abuse is due to the fact that there are many who render it ridiculous by a pretentious and snobbish assumption of arms to which they can produce no claim whatever. Architects should not encourage this nonsense by meekly translating into stone or glass the superabundant fancies of their clients. They cannot, of course, be expected to do too much violence to the vanity of their employers, but they can at least proffer the suggestion that a permanent memorial of this description had better have the sanction of the properly constituted authorities, who hold their power direct from the sovereign, inasmuch as it is his prerogative to bestow these honours, in precisely the same way as he alone can confer a title.

* The author acknowledges his indebtedness for most of the illustrations to Mr. G. W. Fry's book *Decorative Heraldry: a Practical Handbook of its Artistic Treatment* (London: George Bell & Sons, 1897).

REGULATION OF INTERNATIONAL ARCHITECTURAL COMPETITIONS.

REPORT OF THE BRITISH DELEGATE AT THE INTERNATIONAL COMMISSION.

COMITÉ PERMANENT DES CONGRÈS INTERNATIONAUX DES ARCHITECTES :

December 1908.

To the Chairman and Members of the British Section—

GENTLEMEN,—

I duly attended the recent sittings in Paris of the International Commission to which you appointed me as your representative. I had also the honour of acting as Delegate for Canada.

I append hereto the text of the Regulations as finally settled by the plenipotentiaries of the various nations represented on the Comité Permanent, together with a translation in double column showing the effect of the alterations made from the Vienna draft.

The following notes on the principal points raised in debate may be of interest :—

No serious objection was raised to Articles 1, 2, 4, and 6, which were accordingly adopted as first drawn.

Article 3 was modified at the instance of M. de Vestel (Belgium), and does not affect the principle of the Regulation.

Article 5.—A long discussion took place on the British proposal that the designs should be anonymous in the final as well as the preliminary stage. Signature of the final designs appears to be invariable on the Continent, and is regarded as a privilege. It was held by most of the Delegates that effective anonymity was practically impossible after the first stage, and that it was better that the authors' names should be frankly disclosed. Further, it was urged that the perfect confidence, which is essential, in the honour of the jury was incompatible with any suggestion that they would be influenced improperly by the signature of the designs; and that in any case the mixed nationality of the jury was a great safeguard from any tendency to decide otherwise than on the merits of competitors. The Committee were greatly interested in my description of the British method of marking designs with numbers after delivery; but, as I was unable to obtain a single vote for the principle of anonymity in the second stage, I did not think it worth while to complicate the Regulations, from a Continental point of view, by urging a mere alteration of method for the first stage.

I then moved, and carried, the new final paragraph of this Article.

Article 7. The alteration in the first clause was made to avoid difficulties arising from accidental delay, variations in local time, &c. My suggestion for rewording the final clause was accepted, as I pointed out that the text of the draft was somewhat ambiguous, and that to send the receipt to the jury would give a strong clue to the identity of the sender.

Article 8.—Other nations than those proposed having urged their claims to use their own languages, the Commission eventually decided to recognise French only.

Article 9. The modifications adopted were proposed by Baurath Neher (Germany), and met with general approval. He pointed out that in the case of special buildings, such as hospitals, it might be difficult to select architects from seven different nations who would be all of recognised eminence in the particular subject. The final paragraph is now very comprehensive, and requires a declaration of absolute disinterestedness from the jurors. It goes some way to remove the British objection to signed designs in the second stage, and I supported Herr Neher.

Article 10.—Monsieur Louvet (France) thought the draft wording might be misunderstood by promoters, and his modification was approved.

The last paragraph was adopted on the motion of Baurath Neher (Germany).

Article 11.—The British proposal in paragraph 1 was adopted with slight variation, which I think an improvement.

The alteration to the last paragraph was made to bring it into conformity with the Bern Convention.

Article 12. I endeavoured to obtain the return of the preliminary designs to the authors selected to take part in the final stage, pointing out that though in a competition of students it is of course desirable that they should not be allowed the opportunity of amending a design made only after consultation with friends and books, yet that in serious practice the first design after selection is no longer of public interest, as it is only the second designs which affect the result. The first designs would of course be returned with the second for exhibition purposes. I obtained a good deal of support, but as the discussion became rather animated, and the Chairman strongly opposed me, I accepted the compromise contained in the new third paragraph. The last paragraph was varied at the instance of the French Delegate.

The document is, in my opinion, on the whole a very satisfactory one.

I am, Gentlemen,

Your obedient servant,

JOHN W. SIMPSON,

Secretary of the R.I.B.A.

REGULATIONS FOR INTERNATIONAL COMPETITIONS.

Translation.

TEXT AS REVISED.

VIENNA DECLARATION.

1. International Competitions should be reserved for exceptional occasions of a really international character.

Unchanged.

2. International Competitions may be either open to all architects without invitation or limited and by invitation.

Unchanged.

Limited and invited Competitions may consist of a single stage.

Competitions open to all should be held preferably in two stages.

3. The "Conditions" of International Competitions are to be identical for all Competitors.

Unchanged.

No drawing model or document shall be taken into consideration except those specified in the Conditions, nor shall any other drawing model or document be exhibited.

No drawing or document submitted shall be taken into consideration except those specified in the Conditions.

4. The Instructions to Competitors should state definitely the Conditions of the Competition, and matters considered desirable should not be left to the option of Competitors.

Unchanged.

5. In limited and invited Competitions, the Conditions should be fully detailed and require the scheme to be fully developed.

TEXT AS REVISED.

In Competitions open to all the Conditions should express the technical requirements in general terms and limit the number and scale of the drawings to the minimum necessary for the jury to understand the design.

The Conditions should require designs to be submitted anonymously under the motto in the first stage, and to be signed by the Authors in the second stage.

Competitors are forbidden under penalty of exclusion to act in any way which would tend to disclose their identity.

6. In double Competitions the Conditions in the first stage should be as those for Competitions open to all, and in the second stage as those for limited and invited Competitions.

Designs selected in the first stage only can be admitted to the second stage.

7. The Conditions of a Competition should be published and placed at the disposal of the Competitors as nearly as possible on the same date in all countries.

Any design not dispatched by the date of closing the Competition shall be excluded; the Carriers' receipt shall be accepted as proof.

8. The Conditions should be prepared in consultation with experienced Architects.

They shall be published in the French language.

9. The jury is to be nominated by the promoters of the Competition; it is recommended that promoters, before nominating the foreign members, should place themselves in communication with the Comité Permanent.

The jury of an International Competition shall be composed of Architects, each of different nationality, one of whom shall belong to the country which institutes the Competition. A legal authority, nominated by the Administration promoting the Competition, shall preside in order to ensure regular procedure, but shall have no vote.

The members of the jury, by accepting nomination, shall be held to have declared themselves to have no material interest, either directly or indirectly, in the result of the Competition.

10. It is desirable in International Competitions, and especially in the preliminary stages, that the limit of cost shall be only approximately fixed in order to leave some liberty to the artistic conception of Competitors.

VIENNA DRAFT.

Unchanged.

New Clause.

Unchanged.

The Conditions of a Competition should be published and placed at the disposal of Competitors on the same date in all countries.

The date of dispatch (evidenced by the Carriers' receipt, which must be sent to the jury) is to be the date of closing the Competition.

Unchanged.

The Conditions shall be drawn up in one only of the four languages officially admitted at the International Congresses of Architects of 1906 (London) and 1908 (Vienna)—English, French, German, or Italian.

New Clause.

The jury of an International Competition shall comprise seven Architects, each of a different nationality, one of whom shall belong to the country which institutes the Competition. A legal authority, nominated by the Administration promoting the Competition, shall preside in order to ensure regular procedure, but shall have no vote.

The members of the jury, by accepting nomination, shall be held to have declared themselves to have no material interest, either directly or indirectly, in the execution of the work which is the subject of the Competition.

It is desirable in International Competitions, and especially in the preliminary stages, that the limit of cost shall be only approximately fixed in order to leave full liberty to the artistic conception of Competitors.

TEXT AS REVISED.

VIENNA DRAFT

When the sum available for carrying out the work is specified, the Conditions of Competition should give the information required for preparing approximate estimates on a uniform basis.

New Clause.

11. The total value of the premiums to be awarded shall be $2\frac{1}{2}\%$ on the cost for works not exceeding £100,000 in value, 2% on those not exceeding £200,000, and $1\frac{1}{2}\%$ for works beyond that value.

The total value of the premiums to be awarded shall be at least double that of the fees payable upon the execution of the work if it had been entrusted to an Architect without competition.

The principle must be enforced that the carrying out of the work be entrusted to the Architect placed first, subject to the conditions in force in the country promoting the Competition.

Unchanged.

The amount of the prize shall not be deducted from the amount of the fees payable.

Unchanged.

In the event of the person or Corporation promoting the Competition wishing to reserve the right to pass over the Architect placed first, the Conditions of Competition must state the terms of compensation.

Should the work not be executed, the same compensation shall be due.

In all cases the authors of designs submitted retain the artistic copyright in their design, and in the building which is a reproduction thereof.

In all cases the authors of designs submitted retain the artistic copyright in their design, and in the building erected from it.

12. In single-stage Competitions all the designs shall be exhibited in a suitable place and for a sufficient time to enable all Competitors to visit the Exhibition, which should be advertised beforehand in the professional papers.

Unchanged.

In double Competitions there shall be no Exhibition after the first award; all the drawings shall be placed under seal and exhibited subsequently, together with the designs in the final Competition.

The authors of designs selected in the first stage shall have the right to make tracings thereof for use in preparing their final designs.

New Clause.

The full report of the jury, giving their reasons for the award, shall be published before the opening of the Exhibition and communicated to all the parties interested.

The full report of the jury, giving their reasons for the award, shall be published before the opening of the Exhibition for the information of all the parties interested.



9 CONDUIT STREET LONDON, W. 9th. *January* 1909.

CHRONICLE.

THE BUSINESS GENERAL MEETING. 11TH JANUARY.

Obituary: W. M. Fawcett and E. A. Gruning.

At the opening of the proceedings last Monday, formal announcement was made by the Hon. Secretary, Mr. Alexander Graham, F.S.A., of the loss the Institute has sustained by the deaths of its esteemed Fellows and Past Vice-Presidents, Mr. William Milner Fawcett, F.S.A. *Fellow* 1860, who died on the 27th ult., and Mr. Edward Augustus Gruning [*Associate* 1860, *Fellow* 1869], who died on the 30th ult. Mr. GRAHAM said:—

Mr. Vice-President and Colleagues.—It is with very deep regret that at the opening of a new year I have to announce the decease of two old and highly esteemed friends and valued colleagues of our Institute.

I have before me the name of William Milner Fawcett, whom most of you will remember as having served for many years as a member of the Council, and for four years as a Vice-President of the Institute. As his name was better known to the older members of our body than to the rising generation, I think this is a fitting opportunity to place upon record our high appreciation of the services he rendered the Institute during the years that he occupied a seat at the Council table. Mr. Fawcett was a man whom we all held in high respect, not only as a colleague but as a personal friend, and we were always glad to meet him when he came up from Cambridge to attend the Council Meetings. I should like to move that a letter of sympathy be forwarded to Mrs. Fawcett expressing our recognition of Mr. Fawcett's distinguished services in the promotion of architecture, of his honourable career in the profession, and our appreciation of the valuable services he rendered as a Member of the Council and as Vice-President of the Institute.

It is with equal regret, speaking as an old personal friend of our late colleague, Edward Augustus Gruning, that I have to announce his decease, which occurred on the 30th December. His good name,

his high reputation as an architect, and his works, especially in London and the neighbourhood, are familiar to you all. Equally well known to you is the high character of our lamented colleague as a man, and the strong personality he brought to bear upon the many matters of importance that came before him as a Member of the Tribunal of Appeal and as arbitrator in building disputes. In the conduct of these and other affairs he not only showed a high-mindedness and a disinterestedness in everything he did, but these were coupled with a kind-heartedness and a generosity of purpose which were strikingly conspicuous on many occasions. I feel sure that we shall all hold in respectful memory the name of Edward Augustus Gruning, who throughout an honourable career never failed to uphold the dignity of his calling, and never spared himself when it was a question of furthering the interests of the Institute. He was a man of high character and of exceptional talent, and one whose sound common sense and judicial treatment of matters that came before him were quite exceptional. We who knew him intimately deeply deplore his loss. I have only to move that a letter of sympathy be addressed to his son and his daughters expressing our sense of the loss we have sustained, and assuring them that there is not a single member of the Institute who does not appreciate his great services in the promotion of architecture and in furthering the high aims of this Institute.

THE CHAIRMAN (Mr. Edwin T. Hall, *Vice-President*): Gentlemen, I should like to associate myself with what the Honorary Secretary has said. I did not myself know of Mr. Fawcett's death until to-day, and I particularly remember his great kindness, for it is a quarter of a century ago since I was elected a Fellow, and he was the first to congratulate me—a fact which I have always remembered with affectionate regard. He was a staunch ally of the Institute and we all esteemed him very highly. Of Mr. Gruning I should like to say that he set us an example, which I am sure all the Fellows of the Institute have tried to follow, in his endeavours to assist young men. When I first started in practice I had often helpful guidance from Mr. Gruning, and it was always given with consideration and as though he took a personal interest in one's affairs. Personally I feel that we have lost in him a man of very sound judgment, a man upon whom, in one branch of our profession, when he was acting as arbitrator, we could always rely to exercise a wise mind and to give his decisions with judgment and precision.

Mr. MAX. CLARKE, before making the remarks reported below, said: Mr. Vice-President, it would not be seemly, I think, for me to make any remarks in this room this evening without touching upon the deaths of the two gentlemen who have departed full of years and honour. Mr. Fawcett's acquaintance I had not the pleasure of

having. Mr. Gruning I knew fairly well, and I can say that I derived from him the full measure that a man could claim of another man's services. We all, I suppose, have some objects in life, and one object ought to be to gain the respect of those amongst whom we live. I think if we could all satisfy ourselves that we should die as respected as Mr. Gruning was, it would be a very great consolation to us. He was one of the few men from whom one was sure of receiving the best advice that could be given, and, knowing that beforehand, one felt perfectly satisfied in going to him.

Grant of the New Charter.

The Chairman (Mr. Edwin T. Hall, *Vice-President*), before proceeding to the further business on the agenda, stated that he had much pleasure in announcing that the labours which the Council and the General Body had been engaged in for many years had at last resulted in fruition. The Institute solicitors had received a letter from the Clerk of the Privy Council announcing that His Majesty had been graciously pleased to approve the new Charter. The letter, which had been forwarded to the Institute, was as follows:—

Privy Council Office, S.W., 31st Dec. 1908.

GENTLEMEN,—With reference to the petition of the Royal Institute of British Architects praying for a Supplemental Charter, enclosed in your letter of the 3rd June last, I am directed by the Lord President of the Council to inform you that the King was pleased, at the Council held by His Majesty on the 21st instant, to approve the grant of a Supplemental Charter as prayed for.

The Order in Council approving the Draft Supplemental Charter has been issued to the Home Office, from which department you will receive a communication in due course.—I am, gentlemen, your obedient servant,

W. H. HARRIS,

Secretary to the Secretary & Co., Clerk of the Council.

The Fellowship Question.

The first of the Members' Notices printed on the Agenda for the meeting last Monday was the following: "Mr. Max. Clarke 'F.' to ask the ages of the gentlemen nominated at the meeting of the 2nd November for election as Fellows, but afterwards withdrawn from candidature."

MR. MAX. CLARKE 'F.' rising at the call of the Chairman said that at the meeting of the 30th November last, in a moment when his curiosity had got the better of his discretion, he had asked the ages of the gentlemen who had been nominated for Fellowship and whose names had been withdrawn. The Chairman at that meeting replied that he presumed the information was somewhere in the archives of the Institute. That reply excited his curiosity a little more, and as he could get no direct reply to his query he gave notice that he should ask for the information at the next Meeting. As a result he received the following letter from Mr. MacAlister:

1st Dec. 1908.

Dear Mr. Clarke.—I have just been looking over the Minutes of last week's meeting, and I should like to know whether you wish to press your question to the votes of the Fellowship candidates. We are not troubled by the Fellows to know their ages, and we do not as a matter of fact know them. It would be necessary to write to each of the six candidates and ask the question. As most of them have withdrawn their names to be elected, their names would be justifiably and secretly dropped from the list, and then Mr. MacAlister or B. MacAlister would be asked to give notice at the next election of a motion regarding the Fellowship question.—F. H. H. votes.

J. S. MacAlister, Secretary.

He replied to that letter as follows:

2nd Dec. 1908.

Dear Mr. MacAlister.—I am obliged for yours of yesterday's date. It seems to me most desirable that the ages of candidates for election should be known to the Council, and that is for the Council to decide whether to the body of members who elect the new Fellows.

As far as I personally am concerned I am in objection to Fellows being elected who are of an age which would merit the consideration of the body of members.

It is now a generation since the Examination Scheme was inaugurated, and it does not appear to me reasonable that one set of men should be asked to devote some considerable portion of their time at a most valuable period of their lives when they could attain a more honourable position by means or methods which call for no outlay of either time or trouble. So that your motion, proposed, I shall ask the question I have given notice of at the next meeting both with regard to the gentlemen whose names are withdrawn, and also to those whose names appear on the Notice of Election of 4th December next, and I hope the above explanation is a sufficient one to prevent any action in the matter.—Yours truly,

Max. Clarke.

He then received the following from Mr. MacAlister:

3rd Dec. 1908.

Dear Mr. Clarke.—I am obliged by your prompt letter of the 2nd instant. The meeting at which your question will be raised is the Business Meeting of the 4th January next. By-laws 56 and 58 appear to confer such questions to Business Meetings. I shall take your letter of the 2nd as the formal notice that has to be given of such a question.—I am truly yours,

J. S. MacAlister, Secretary.

He had only pursued the matter because he thought it was desirable that some idea should be given of the ages. Members were asked to vote on the election of Fellows, and it was reasonable to imagine that all the information available would be placed at their disposal. He was quite aware that the by-laws gave no direct power to require the ages to be given, but it was quite easy for the proposers of the candidates to find out in an indirect manner (as Mr. MacAlister had done in the case of the Birmingham gentleman) whether they were of an age that would entitle them to the consideration of the General Body of members. His aim in bringing this matter forward was to put before the Council the desirability of offering members as much information as possible about the candidates recommended for election. Members were asked to vote for people they knew nothing whatever about, they were quite ignorant as to whether their age was thirty years and three months or sixty years and three months. Although it was not part of the rule and regulations of the Institute that they should hold an inquiry as to what day a man was born, it was possible to afford members quite enough information upon which they could base

their conclusions, and he thought such information should be given. Much of the friction now constantly occurring would be smoothed over, and perhaps would not arise at all, if the Council would consider his suggestion.

MR. H. D. STARRS-WOOD [F.]: Does Mr. Max. Clarke realise that this would put another obstacle in the way of our lady members coming forward for the Fellowship?

THE CHAIRMAN: And he was sure members would bear in mind and appreciate, that the Council's business was simply to see that the Charter and By-laws were complied with, and these only laid down that a man should be over thirty years of age. They had no means of ascertaining anything beyond that. If, however, it was the general wish that in the Form of Application a man should state his age—there could be no objection to that—it was merely a question of altering the printed form. As to whether that would convey all they desired to know he was not quite sure. If, however, it was the general wish of the Meeting, there would be no difficulty in amending the Application Form so that a man should be bound to state his age.

MR. H. V. LANE-HUTTER [F.]: pointed out that at the present time a candidate had to state when he was articled and when he first started practice. If these particulars were given they had all that was required.

MR. GEORGE HUBBARD, F.S.A. [F.]: Is there not now another point? The new Charter, I understand, is granted, and there is no opportunity left for anybody to come forward as a Fellow except from among the Associates. There will therefore be no necessity to demand the age of a candidate.

MR. GAMMELL: Do I understand clearly that the granting of the new Charter automatically closes the Fellowship to those who have not passed through the Associateship?

THE CHAIRMAN: Subject to anything that our legal advisers may have to say to the contrary, it undoubtedly does, because we passed a resolution in this room about a year ago that the Fellowship should be closed when the new Charter was granted. There is, of course, the special reservation in the case of certain architects whom it may be desirable to admit to the Fellowship.

MR. MAX. CLARKE: May I ask what has become of the gentlemen whose names were up for election as Fellows at this evening's meeting?

THE CHAIRMAN: We have referred that matter to our solicitor. I should think, as a matter of fairness to gentlemen whose candidature has been passed, that they should come forward for election. One of them, I may say, is of mature age.

MR. G. E. NIELD [F.]: May I ask whether under the new Charter the old By-laws exist, or will they have to be re-enacted?

THE CHAIRMAN: The present By-laws are applicable except where the new Charter conflicts with them. In the latter case new By-laws must be made to suit the altered conditions.

MR. NIELD: Will that affect By-law 9?

THE CHAIRMAN: It does not affect By-law 9. There is nothing that we propose to change in that. As regards the age question, may I ask if Mr. Max. Clarke is satisfied?

MR. MAX. CLARKE: Yes, Sir, quite.

THE CHAIRMAN: Now I will call upon Mr. Nield to move the Resolution of which he has given notice.

MR. NIELD: There are special circumstances under which Fellows may be elected under the new Charter. Is there any appeal from the Council's nomination? Supposing, for instance, the Council nominate certain persons, will members of the general body have power to sign a request for a ballot?

THE CHAIRMAN: No, distinctly not. The Charter makes that quite clear.

MR. NIELD: Can Fellows only be elected from the Associates under the new Charter?

THE CHAIRMAN: The general election to the Fellowship will be from Associates only, but power is reserved to the Council to elect to the Fellowship in certain cases, and that is governed by the new Charter.

MR. NIELD: Will there be By-laws made under the new Charter?

THE CHAIRMAN: Certainly.

MR. NIELD: Then that will be the time to bring forward my motion relating to the present By-law 9: that is to say, if we wish to keep the power in our own hands to vote upon the question of election of Fellows by the Council.

THE CHAIRMAN: A by-law cannot possibly override the Charter.

MR. NIELD: I quite agree, but there will be By-laws made under the new Charter?

THE CHAIRMAN: Of course.

MR. NIELD: Then I think that will be the proper time to move the motion which I proposed to bring forward to-night.

THE CHAIRMAN: Do I understand that you withdraw the motion?

MR. NIELD: Yes, because the new Charter will be in force: therefore it seems to me that the present Resolution would fall to the ground, and it would be merely waste of time.

MR. HUBBARD: Before the next business is taken, Mr. Chairman, may I say that you have perhaps conveyed a wrong impression with regard to the power of the Council to elect to the Fellowship without giving members an opportunity of demanding a ballot? So far as I understand the position, the power of the Council to elect Fellows is only to be exercised in case of men of very marked eminence. It is not for the purpose of electing as a Fellow anyone who is in practice, and has been in practice for a certain number of years. It is simply meant to apply to eminent men. Is not that so?

THE CHAIRMAN: The Charter itself does not put it in that way, but I am sure you must understand that the Council will not by any side wind endeavour to go behind what the Charter means. The Council are not in the remotest degree likely to propose a person for the Fellowship except under very exceptional circumstances. Henceforth Fellows must be elected either from the class of Associates, or they must have passed the Examination for Associateship. But very properly the Charter has made provision by which under abnormal circumstances elections may be dealt with by the Council. The matter was fully debated when the Charter was under revision, and I am quite sure it would be right and reasonable that such trust should be reposed in the Council.

The Institute Resolution re Limited Competitions.

MR. K. GAMMELL [A.] had given notice of his intention to move the following Resolution, which was notified to members on the 28th ult. by a supplementary agenda:—

“That the Council of the Royal Institute of British Architects shall forthwith give effect to the will of its Members, as expressed by the Resolution passed in Open Meeting on 7th January 1907, whereby this Institute

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* Mr. Nield's Resolution, as printed on the Agenda, was as follows:—“That the Fellows and Associates of the Royal Institute of British Architects demand, as due to them, a full and satisfactory explanation from the Council, or its responsible officers, of the circumstances leading up to the proposed suspension of part of By-law 9, and direct that in future no such motion shall be moved. They condemn such proceedings as that attempted, and consider it unworthy of the Governing Body of the Royal Institute.”

showed its disapproval of the principle of Limited Competitions for Public Buildings erected with Public Moneys, by forwarding a copy thereof to the Council of every County, County Borough, and Borough, in England and Wales, before the 10th day of April 1909."

MR. GAMMILL, being called upon by the Chairman said: I shall open my remarks by quoting a statement made by our worthy Vice-President, Mr. Hall, when speaking on my motion on 7th January 1907. This statement was made in answer to one of mine in which I pointed out that the wording of my Resolution—namely, that the Council should take such steps as might be deemed advisable—did not tie the Council's hands in any way. Mr. Hall's reply was as follows:—"If the Institute directs its servant, the Council, to do a thing, the Council has to do it. It must be a direction to the Council to do it or not to do it. If the Institute deliberately gives such a direction the Council must carry it out. As to its wisdom members must settle that for themselves." Gentlemen, it gives me very great pleasure to say that I am entirely in accord with Mr. Hall in that statement: in fact, so much do I see eye to eye with him that I honestly consider the treatment of that Resolution has been most irregular—I cannot say illegal, but most irregular—and according to my ideals it is entirely wanting in fair dealing and *esprit de corps*. I would point out that these words of Mr. Hall must carry considerable weight, and for this reason: Mr. Hall is a Vice-President of the Institute. Further, he is a gentleman exceptionally well versed in the conduct of the affairs of the Institute. Furthermore, he is a member of the Council. Taking these facts into consideration, and taking the fact that this Resolution had been passed, it was with feelings of confident anticipation of receiving official help that I wrote to the Secretary on the 13th March 1908 the following letter:—

DEAR SIR.—The enclosed is a copy of the letter received by me from the Education Committee for the Borough of Luton. In view of the Resolution passed in January 1907 relating to limited competitions I should be glad to know at your earliest convenience what action the Council is taking in the matter.

Awaiting the favour of your reply, yours faithfully,

K. GAMMILL.

The enclosure referred to was a letter received by me from the Educational Authority of the Borough of Luton refusing me permission to take part in a competition for a new school in that town. As being entirely necessary for my explanation I must read my reply to that authority. It is dated 13th March, and runs as follows:—

COMPETITION FOR PROPOSED NEW ELEMENTARY SCHOOL, LUTON.

DEAR SIR.—I have to acknowledge your letter undated, received 11th March, refusing me permission to compete in the above, and in reply I wish to most strenuously protest against the conduct of this competition. As a resident in Bedford, as a professional architect who has had experience of schools and has devoted considerable time, trouble, and expense in keeping himself up to date in educational matters, and as against the general public interest, I protest strongly against an action which cannot possibly make for the selection of the best design. In conclusion, I may say I shall make it my object to, so far as lies in my power, ventilate what I and many others of my profession, and a considerable portion of the public, regard as a rank injustice.—Yours faithfully,

K. GAMMILL.

The Secretary, Education Committee, Luton.

In reply to my letter to the Institute I received the following, dated 27th March:—

DEAR SIR.—Your letter of the 13th inst. together with copy of a letter from the Education Committee for the Borough of Luton, has been considered by the Competitions Committee of the Royal Institute. I am desirous to say that the Committee have not hitherto been able to take any steps to carry out the object of the Resolution of January 1907.—Faithfully yours—

IAN McALISTER, Secretary.

I can say in all sincerity, keeping in mind Mr. Hall's remarks, that the letter came to me as a blow in the face. I was utterly unable to understand it, and I therefore wrote to the Council asking them to state definitely what steps had been taken to carry out the spirit of the Resolution passed on 7th January 1907. Some considerable time elapsed and I had no reply; but through the good offices of a friend of mine on the Council I eventually got the matter placed on the Council Agenda for 18th May, and on 21st May I received the following letter:—

21st May 1908.

DEAR SIR.—Your letter of the 3rd ult. together with the enclosure from the Luton Education Authority was considered by the Council of the Royal Institute at their last meeting. I am desirous to say that the Council are unable to see how it is possible for them to take any steps to carry out the spirit of the Resolution of January 1907 with regard to limited competitions.—Faithfully yours,

IAN McALISTER, Secretary.

The receipt of that letter left me no alternative but to ventilate this matter. That I have not done so until this evening has been due to a variety of causes, one of which is ill-health. The incontrovertible facts of the case are these. The first is that on 7th January 1907 an order was given to the Council of the Institute to take steps to discourage limited competitions for public buildings erected with public moneys. The second is that that order has never been rescinded. The third is that the Council, in face of a mandate of the majority of their members, have taken no steps to carry out that duty. The issue, Gentlemen, appears to me very simple. What we are here to decide to-night is this: Is the Institute to be ruled by a minority or a majority? It may sound a very strong expression of opinion: I do not deny that it does. I could use stronger language, but I prefer to use moderation. To me the matter seems to go to the very root principle of the constitution of the Institute, namely, a body of men banded together for the advancement of architecture and for mutual good. I could advance other reasons why I should have been permitted to enter for this particular competition, but I prefer not: I can make myself sufficiently clear without. But there is one point I want particularly to call attention to before formally moving this Resolution, and that is this. The question to-night is not as to the justice or injustice of limited competitions for public buildings, but as to the rightness or the wrongness of the Council in treating a mandate of their members in the way in which they have treated this one. That is the issue, and I mention it for this reason that should the first issue be raised I shall have strenuously to oppose any such issue. I now formally move the Resolution which has been printed on the notice, and there cannot be any suggestion on this occasion that nobody has had notice. The motion is this:—"That the Council of the Royal Institute of British Architects shall forthwith give effect to the will of its members, as expressed by the Resolution passed in open meeting on 7th January 1907, whereby this Institute showed its disapproval of the principle of limited competitions for public buildings erected with public moneys by forwarding a copy thereof to the Council of every county, county borough, and borough in England and Wales, before the 10th day of April 1909." I should like to add that I have not asked anybody to second this Resolution. I wanted it to stand on its merits.

Mr. C. H. BRODIE [A.]: I dislike competitions altogether, but I will second this Resolution. I cannot conceive myself that any good can result from the discussion of such a Resolution or the passing of such a Resolution, because if you sent a notice of the kind indicated to a county borough council or a borough council they might write back and say, "Very well, then: we will appoint an architect," and Mr. Gammell in that case will still be excluded.

THE SECRETARY: I have to read the following letter from the Liverpool Architectural Society, dated 31st December 1908:—

DEAR SIR,—The enclosed Resolution was unanimously passed at a meeting of the Council of this Society to-day. I am instructed to ask you to bring this Resolution before the meeting of the Royal Institute of British Architects on Monday next, 4th January 1909, when Mr. Gammell's Resolution comes before that meeting.—Yours truly,

The Secretary R.I.B.A. GILBERT FRASER, Hon. Sec.

RESOLUTION.

"That this Council is of opinion that any petition of the nature proposed in this Resolution would be a serious mistake. That public bodies have a right to decide as to the scope of their invitations to compete, and that though the principle of the Resolution may be open to discussion as far as it relates to public buildings erected at the national expense, this Council is of opinion that competitions for local public buildings to be erected with money provided out of the local rates may frequently be wisely and rightly confined to architects practising in the district. The Council therefore offers the strongest possible opposition to Mr. K. Gammell's motion."

MR. GAMMELL: May I ask whether the reading of that letter is quite in order?

THE CHAIRMAN: Absolutely.

A MEMBER: Is that the resolution of the Society, or of the Council of the Society?

THE SECRETARY: Of the Council of the Society.

MR. GAMMELL: Is that letter supposed to carry any weight, seeing that it is only the Resolution of the Council and not of the entire Society?

THE CHAIRMAN: That is for the individual members of the meeting to consider.

MR. W. HENRY WHITE [J.]: I beg to propose as a counter Resolution that it would be quite inadvisable that any such Resolution as this should go out.

THE CHAIRMAN: That is a direct negative, I think. You can speak to the motion, of course.

MR. WHITE: I quite agree with Mr. Brodie. So many attempts are being made now to get public work put into the hands of paid officials of public bodies that any such attempt on behalf of the Institute to force such a procedure upon the members of such bodies would meet with dire results. Any kind of persuasion that can be brought to bear to induce them to put the matter up to open competition I think would be wise and judicious, but anything in the nature of an attempt to force our views upon them would result in our being ousted altogether.

MR. J. NIXON HORSFIELD [J.]: May I be allowed to suggest an amendment? Mr. Gammell has made it perfectly clear that his first kick is at the Council for not having done as it was told—that, he says, is the issue before the Meeting. He does not wish the question of competitions to be discussed at all. There is as much to be said against competitions as there is to be said in their favour; but in order to clear the air, so that we shall not hear again the perennial arguments on either side of the question, I move that all the words after "members" be deleted from the motion. I do not like the suggestion that copies of the Resolution should be sent to the County Councils and such bodies throughout the country. One knows perfectly well what happens when such circulars are received by those bodies. The members sit in state and the clerk

mumbles out the circular to them; they look upon such circulars as trade advertisements, and give them no more consideration than they would to a stereotyped communication from the Local Government Board. I hope the discussion will be continued on the lines of the abridged motion.

MR. HORACE J. HELSDON [F.]: I cannot resist the opportunity of seconding the proposal, because, after all, I think there is a question of great importance before the Meeting to-night. It is a fact that an order has been given to the Council, and the Council have, on their own better judgment perhaps, refused to put it into operation. Personally, I think the Council were well advised, perhaps, so far as the principle is concerned, in not carrying out the Resolution which was passed by this body. I know what it is to be on a public body. I know how these documents are received that are sent to them by outside bodies. Even sometimes the Local Government Board is not appreciated. Interference from an outside Society is resented. The Institute would be classed with the various trade unions who ask for union rates of wages, and I am afraid it would not receive that deference which I am sure every member of the Institute desires that it should receive. Therefore I think it is undesirable that suggestions of the kind proposed should go out to public bodies. At the same time I do think it is uppermost in the minds of all of us that a Resolution passed by the membership as a whole should certainly receive the consideration of the Council, and some good reason should be put forward for not carrying out the express wishes of members if those wishes are not carried out. Therefore I second the amendment, although I hope that eventually the Resolution will be dropped.

MR. G. A. T. MIDDLETON [A.]: I am glad that the matter has been brought forward in this way, because it gives us an opportunity of negating it, and consequently absolving the Council from the necessity of doing that which I think would be entirely inadvisable.

MR. A. W. S. CROSS [F.]: May I suggest that we should have before us the terms of the Resolution of the 7th January 1907?

THE SECRETARY read the Resolution, which runs as follows:—"Resolved, that in view of the fact that limited competitions for public buildings erected with public moneys are a great injustice to the young and unknown members of the profession struggling for recognition, and also not in the best interests of the promoters, this Institute declares that such competitions should not be limited, and should take such steps as may be deemed advisable to discourage public bodies from instituting such competitions."

MR. HORACE T. BONNER [J.]: Much as I am against the dealings of the Council as a rule, I must say that I think the Council acted wisely in this matter. I myself have taken part in many competitions, and I think all my friends and brother Associates will agree with me that it is useless to make suggestions unless you have the power to enforce them. We should only be laughed at if we sent such a ridiculous proposition to any public body. We have no power to enforce it—we have no power to prevent their giving their work to whom they like and doing what they like, and I think in some circumstances very properly. I have had experience myself in the Provinces and in the Colonies, and I must say I do not think that all the talent is centred in London. I have had very considerable experience during my forty years of professional life, and I have always striven to make the power of the Institute greater, to uphold the Institute, and to raise the status of the architect. In this instance I think the Council have acted wisely and well. We should only make ourselves a laughing-stock if we sent out a suggestion that we have no power to enforce.

MR. WILFRID I. TRAVERS [A.]: May I, as one of the very much younger members, say, in reply to the last speaker, that if we have no power to enforce this we have also no

power to enforce the Institute's Regulations for Competitions, and we had also no power to write to the Acton Borough Council, and no power to send a letter to the Blackburn Council? If this suggestion to Borough Councils is ridiculous, so was the action of the Council in writing to the bodies I have referred to.

MR. FRANK LISHMAN [F]: There is one point I should like to put before the Meeting. So far as I remember, the direct Resolution was that the Council should take such steps as they deemed advisable in the matter. Would it not be treating the Institute fairly, and may not the Institute reasonably expect some explanation from the Council in answer to Mr. Gammell's resolution? They have rendered no account of themselves in the matter, and they have had two years to think it over. Members had a right to expect that the Council would treat the matter with respect and give their reasons for not carrying out the Resolution. Members would receive with every indulgence any explanation showing good reasons for the Council's inaction in the matter.

MR. H. V. LANCHESTER [F]: I should like to support the last speaker, because I am in entire sympathy with Mr. Gammell's object. I believe that if we could achieve that result the best work would be produced by such open competitions. I am compelled to admit, however, that we are not in a position at the present time to force that on local bodies. Supposing we were in such a position, we have not the sympathies of the Allied Societies in so doing, and it would be very unwise at the present moment to embroil ourselves with the Allied Societies, whose feelings, judging from representation, that have been made to the Council, are obviously in favour of a degree of limitation. I am not in sympathy with them in these objections, but I think the Council ought to have a little time to be able to try and reconcile these divergent opinions before they attempt to put forward the question of general open competitions. They have a number of other things on hand with regard to competitions, and I think if Mr. Gammell can see his way to leave us a little latitude as to time in putting this original Resolution in operation, the Council would be able to give him some satisfaction in the matter. I am only speaking for myself, of course; but I think the Council would feel probably, as a principle, that if a thing has been pronounced upon by the members of the Institute, something ought to be done, if it is practicable; and perhaps in course of time it will be practicable, in conjunction with other things, to get some recommendation generally agreed to by architects throughout the country on this matter of open competition.

A MEMBER: Can we take Mr. Lanchester's opinion as official on the part of the Council? Or will the Council make any further explanation?

THE CHAIRMAN: I will say a few words presently. Perhaps Mr. Gammell desires to say something in reply to what has been said.

MR. GAMMELL: I should like to ask a question. Have you received any other communications on the question?

THE CHAIRMAN: No.

MR. GAMMELL: The one read is the only one you have received?

THE CHAIRMAN: Yes.

MR. GAMMELL: That is all I have to ask.

THE CHAIRMAN: Mr. Gammell was so kind as to quote some observations of mine, not made from the Chair, but sitting on one of the benches, and I am sure he will excuse me if I quote one or two of his. In the first place, I would point out to you that the Resolution that was carried says: "That this Institute declares that such competitions should not be limited, and should" (that is the Institute, not the Council) "take such steps as may be deemed advisable to discourage public bodies from instituting such competitions." In the debate Mr. Gammell laid stress on this point. He pointed out that the terms of his Resolution were "should take such steps as may be deemed advisable,"

and he said "I did not tie the Council's hands in any way." Those are Mr. Gammell's words. What the Council had to do was to consider the effect of that Resolution, and acting as your trustees to try and do what they could, and feel whether it was in the interests of the Institute that they should take certain action. They thought it would be very unwise in the interests of the Institute that they should take any such step as that when Mr. Gammell was suggesting to-day, and in May last Mr. Gammell was informed in reply to his question, that the Council were unable to see that it is possible to take steps to carry out the spirit of this Resolution. They had reason to believe that it would be most unpopular in the provinces to do so. You have just heard read a Resolution that has been sent to some local bodies, from one of the most powerful of the Allied Societies, and we have reason to believe that that view would be taken by some of the other Allied Societies. Would it have been then in the interests of the Institute that the Council should have sent a document like this to all the local councils as suggested, and then to have Allied Societies in the country saying to those public bodies, "We do not agree with this?" We should have been the laughing stock, as one member has said, of the councils. Then what should we have done? We should have created a great schism all over the British Isles. Would that have been desirable? In these cases a Resolution which is passed in this meeting room, and which the proposer distinctly says is not to tie the hands of the Council in any way, means that you are trusting to your Council to be wise in the way they carry out what has been passed in this room, and passed on a motion when there were only ninety-two members present. Ninety-two! when we have something like 2500 members altogether. Would it have been wise in your interest if the Council had done what Mr. Gammell suggests now they should have done? I believe the Council has acted wisely in not taking this action. I believe it is a matter that may with reason be considered by the Competitions Committee, who are considering a great many points relating to competitions generally, and that they should advise the Council on such a matter. This is the Institute of British Architects—an all-embracing body. We want to take a broad view of what is best for all. There is no question of the Council having personal views in the matter. The Council's views are those of trustees trying to do what is best for you, and I do hope that not only the latter part will be omitted, but that Mr. Gammell will see his way to withdraw this Resolution altogether. It would be contrary to the interests of the Institute to act upon it. It would weaken the great influence that we have with all these public bodies. The influence that we have with them is because we try not to take an action which they may think is not in their interest but in ours. If they see that it is in anything like the interest of trade unionism it will not be listened to, and the influence we can exercise on other occasions will be lost. Do you feel disposed, Mr. Gammell, to withdraw the Resolution?

MR. GAMMELL: No, I do not.

THE CHAIRMAN: Then I must put it to the meeting.

Some misunderstanding arising between the Chairman and Mr. Gammell with regard to the latter's right to reply, the Chairman took the sense of the meeting on the matter, which was pronounced in favour of Mr. Gammell's being further heard.

MR. GAMMELL: I should like to reply to three or four of the speakers. With regard to Mr. Bonner's remarks, I think they can be dismissed. I never suggested that the Council could use or should use force. I merely suggested that they should use suggestion—not force—that would be suicidal. Mr. Lishman has called attention to my words, which I put in with the greatest care, because I wished to treat the Council in a spirit of absolute fairness. I wished them to have a free hand in the matter but I thought I should receive very different treatment. I have had to force myself

upon the Council, and that I say should not be the case. I am speaking for all the young men in the Institute: I am not speaking for myself alone and not to gratify my vanity. Then, with regard to the action of one Society, or the Council of that Society, I may say that when I originally brought this motion up on 7th January 1907 I made a statement, which can be verified by reference to the *JOURNAL*, that I had taken the trouble to write to all the Societies, and that I knew that a considerable number of those Societies were in favour of my motion. Some did not reply, some sent negative answers; but I received a great number of replies, and I think the majority were in favour, and those were the Allied Societies. Then I should like to suggest to Mr. Hall that the Council represents the Institute. The Council is, as he has said, the Institute's servant. Now, the master told the servant that it was to discourage limited competitions for public buildings erected with public money, and I suggest, and I hope I do not give undue offence, but I do suggest that there has been a breach of trust; I honestly believe so. I would suggest that the proper course, if there was no intention to carry through the Resolution, was to have demanded a poll. Apparently there is some feeling abroad that I obtained some sort of snatch result. If that was so, why was not a poll demanded? That would have been a fair, above-board way of dealing with the matter.

THE CHAIRMAN: I am glad Mr. Gammell has had an opportunity of saying what he desired to add on this subject. It is for you to say, Gentlemen, whether he has carried the matter any further. If you think the Council has acted wisely in not having done what is suggested, you will negative this motion. If you think the Council has done wrong in not carrying out what Mr. Gammell has suggested you will support it. But I will call your attention to the fact that, if so, it is a vote of censure. This is a very delicate subject, and you cannot in a matter like this know all the difficulties and all the things that have to be considered by the Council. As Mr. Gammell does not see his way to withdraw the Resolution, I must put it to the vote. You will clearly understand the issue that is before you, and you will decide whether the Council has been wise, or whether the Council has not been wise, in the course it has adopted.

MR. H. D. SPARFELS-WOOD [F]: pointed out that Mr. Horsfield's amendment was still before the Meeting.

A MEMBER: May I point out that, if the latter part of his Resolution is deleted, it simply reads "The Council shall forthwith carry out the will of its members," but does not in the least say on what subject?

THE CHAIRMAN: That is just the point I was trying to make. It is too wide a Resolution, and does not help the matter at all.

MR. CROSS moved, as an amendment, that the Resolution should stop at the words "January 1907."

MR. HUBBARD seconded.

THE CHAIRMAN: Is that an amendment to Mr. Horsfield's amendment?

MR. HORSFIELD: My intention in leaving out the last part of the motion was to leave out the part I objected to. It may be, and I believe it is the case, that the Council has considered the Resolution which was passed on the 7th of January 1907, and I am personally quite in accord with the action of the Council; but, for fear that the members should think that the Council let it slide, there is no harm in Mr. Gammell bringing forward a motion which will have the effect of waking them up, and there is no reason why that motion should not go through, provided that the objectionable words are deleted. I should like my amendment to stand.

MR. LANCHESTER: I think if this amendment included the next sentence, so as to define what has to be done, we should get an issue. Let the Resolution read down to "January 1907," and omit the word "forthwith," because

I do not see how it is possible to do it forthwith. Perhaps Mr. Cross would agree to that?

MR. CROSS assented.

MR. LANCHESTER: I understand, then, that Mr. Cross's amendment reads as follows: "That the Council of the Royal Institute of British Architects shall give effect to the will of its members as expressed by the Resolution passed in Open Meeting on 7th January 1907." I am in agreement with the principle, and I think we should try and make an effort to get that principle adopted.

MR. W. HENRY WHITE [J]: If I am in order, Sir, may I put my point in another way, and move that we proceed to the next business?

THE CHAIRMAN: Yes, that can be taken.

MR. GIBSON: I should like to second that. We have talked over this subject pretty extensively, and if we move a direct negative to Mr. Gammell's motion it still leaves the original Resolution passed in January 1907 to be acted upon, and any action which the Council may think it advisable to take is open to us in future. We have not negatived that. It is simply that Mr. Gammell proposes a certain drastic method of dealing with a specific question incidental to competitions. He thinks a frontal attack on the public bodies is the best. We have considered this matter, and we think our methods of getting at public bodies much better, and certainly it is quite an incidental portion of a very complex business. If Mr. Gammell were a member of the Competitions Committee, and put in the time that other members do in considering the various ramifications in the conduct of competitions, he would know in a very short while that this was not the method by which to approach public bodies in order to get reform. To put the thing in order I think it is better not to have a direct vote on Mr. Gammell's motion, but to pass to the next business, which really leaves the original motion of January 1907 standing in the records of the Institute.

MR. J. KIRKLAND [J]: I think it would be very unfortunate that either the amendment or the original motion should go through. I do not think either of them expresses the mind of the Meeting. I think the feeling is that the Council have been right in not carrying this Resolution into effect, but that they have been wrong in not giving some explanation of their inaction. I should move, therefore, as a further amendment to meet the case as I think it stands: That this meeting, realising the difficulties that the Council have had in this matter and sympathising with their inaction, feel that by this time some explanation of it should have been given to the Institute.

MR. A. R. JENNIFTS [F]: I venture to appeal to Mr. Gammell to accept Mr. Cross's amendment. The Meeting feels that the Council ought to have taken some steps to carry out the mandate of the general body, but the whole Meeting does not feel that the wisest course would have been to send out this circular. If Mr. Gammell would join forces with Mr. Cross and Mr. Hubbard, he would carry the Meeting with him.

MR. GAMMELL: I am quite prepared, in an attempt to pour oil on the troubled waters, to accept the amendment proposed by Mr. Cross and seconded by Mr. Hubbard.

THE CHAIRMAN: Even as amended, this is a very serious Resolution. How are the Council to give effect to the will of its members in this matter?

MR. LEONARD STOKES [F]: The fact has been lost sight of, I think, that the Resolution of 1907 wound up with these words, "take such steps as may be deemed advisable." The Council did not see what steps were advisable to take, and they could not take any. It is really left to the Council's discretion. They have exercised that discretion, and I think we have to thank them.

MR. HENRY T. HARR [F]: As Chairman of the Competitions Committee I should like to say that Mr. Gammell had a letter from the Secretary informing him that his letter had been considered by the Competitions Com-

mittee, and that they had not been able to see their way to give effect to his Resolution. The Competitions Committee had taken the view that the only action it was possible for the Institute to take would be in a case where the Institute was applied to by any public body directly for advice with regard to any specific competition. In a case like that they could say "You had better have open competition." That was the only way they saw in which any useful action could be taken with respect to this Resolution.

MR. GAMMILL: But do not the Competitions Committee send suggestions to promoters saying that certain conditions of a competition as proposed are objectionable, or suggest that they are objectionable and ask them to amend them if possible?

MR. HAKE: Yes.

MR. GAMMILL: Then why should not some such procedure be adopted with regard to what I have said?

THE CHAIRMAN: I hope the Meeting realises what this Resolution means. Though you are omitting these last words, it is just as serious as if the whole Resolution were carried. It would be much better, I think, to refer the whole matter to the Competitions Committee to consider and advise us. That was the course the Council was proposing to take. But if you pass this Resolution I confess it is a very drastic one and very difficult to comply with. That is the light in which this matter should be considered.

MR. W. HENRY WHITE [J.]: I rise, Sir, to a point of order. With every desire that we should finish this discussion happily, I suggested that we might do so on my motion that we should proceed to the next business. When it has been proposed that the Meeting should proceed to the next business, I do not think, as a matter of order, that other things can be discussed until that has been voted upon. My proposal is not made with the idea of stifling discussion, but purely in a friendly way because, I think, and many present think, that although we fully appreciate what many members think is a slight slur but which could not be intended as a slur on the Council, the graceful way out of the difficulty is to proceed to the next business.

MR. LANCHESTER: The effect of Mr. White's proposal is to stifle discussion. I strongly object to his motion being taken at this stage because I want to point out in support of Mr. Cross's motion that there is nothing in the motion so proposed that prevents the Council from doing exactly what the Chairman has proposed, namely, putting the matter in the hands of the Competitions Committee to report upon. The Chairman has suggested that there is nothing the Council can do. There is something they can do, and ought to do, to give effect to this amendment, and that is this: The present Regulations for Competitions include clauses especially dealing with limited competitions, and that must be read to be a recommendation of limited competitions. If it is the opinion of the general body that limited competitions are not in the best interests of architecture, those clauses ought to be deleted. But I do not want to put the Council in a position which makes it embarrassing for them and will cause any schism, as the Chairman suggested. Therefore, I asked Mr. Cross to eliminate the word "forthwith" in order to give time to bring the opinion of the Institute into some sort of agreement on the subject. I think with that omission that this amendment is an eminently reasonable one, that it does not attach any stigma to the Council, and therefore that it is worthy of the support of the Meeting.

MR. HUBBARD: I entirely agree. The Chairman has put the question to the Meeting as to how the Council could give effect to the wishes of its members. May I suggest that a poll should be taken in order to find out what really are the wishes of its members?

MR. LEONARD STOKES: It would be a waste of money and a waste of time.

MR. HOLSFIELD: On a point of order, am I not right in stating that my amendment has to come before the Meeting

and that it has precedence over all other amendments, and may I answer the question as to what it means? You have protested, Sir, that it is the desire and I am convinced it is the desire of the Council to give effect to the wishes of its members, but there are some members who wish to make a protest. I do not wish to see the original motion go through, because I have no concern with competitions, but if we want to make the Council as we can do so in various language, and leave them free to do their duty to the best of their lights, as they have a way of doing it.

MR. MARION B. ADAMS [J.]: I said before, though, from what the Chairman had said that he had not quite understood the amendment proposed by Mr. Cross and asked that it might be read to the Meeting.

THE SECRETARY: I understand that Mr. Cross's amendment is: "That the Council of the Royal Institute of British Architects shall give effect to the will of its members as expressed by the Resolution passed in open meeting on 7th January 1907."

MR. CROSS: That is right.

MR. MARION ADAMS: With regard to the Resolution of the 7th January 1907, I voted on that particular occasion against the proposal, but it was carried; and the only reason why I want this carried now is that the Council will then be in exactly the same position as they are now to exercise their judgment.

MR. MURPHY: I suggest that the right thing to do is to support Mr. White and carry his Resolution, but failing that, to negative both the amendment and the Resolution.

THE CHAIRMAN: It is, I believe in strict order that Mr. White's amendment should be put first. If that is lost, then we can deal with other matters. The Resolution that Mr. White has moved is that we should proceed to the next business; that has been seconded by Mr. Gibson. Will you kindly express your views upon that?

Upon a show of hands the Chairman declared the result to be a tie. A recount being called for, on a second show of hands the Chairman declared the amendment lost by 48 to 46.

THE CHAIRMAN: I will now put the second amendment, moved by Mr. Cross and seconded by Mr. Hubbard, viz.:—"That the Council of the Royal Institute of British Architects shall give effect to the will of its members as expressed by the Resolution passed in open meeting on 7th January 1907."

Upon a show of hands the Chairman declared the amendment carried.

The amendment was then put as the substantive motion and upon a show of hands was declared carried.

The proceedings then closed.

The New Law Courts.

The Times of the 22nd ult. published the following letter from Mr. Leonard Stokes, *Vice-President*:—

SIR,—From announcements which have appeared in the Press it seems that four new Courts and their accessories are to be added to the Royal Courts of Justice in the Strand, and that H.M. Office of Works is to carry out the undertaking. I understand, however, that so far a contract for the concrete raft only on which the building is to stand has been entered into, and that the drawings for the superstructure are not yet completed; and under these circumstances I venture to raise a protest against the procedure contemplated.

Such plans as I have seen show a colourable imitation of Street's work, in fact features are borrowed wholesale from different parts of the present building and collected to form the new wing or block, and it is evidently intended that the new work shall be a sort of

rechauffé of Street. Now, surely this is a great mistake. If Street were alive, would he reproduce the work he did some thirty years ago with all its mistakes? Assuredly not. One would rather imagine that, having learnt by experience, he would make a fresh effort and evolve something which, though in harmony with the present building, was yet distinct and better, showing that modern Gothic architecture had not stood still for the last quarter of a century, which it clearly has not.

The Office of Works is an admirable institution, and in its own sphere of usefulness no doubt does good work, but surely copying and completing the work of dead men is hardly one of its legitimate functions; besides which it must tend to throw out of gear the regular work of the office. When Brydon died, leaving the Government buildings in Parliament Street only just begun, the Office of Works, in spite of numerous protests, undertook to carry on his work, giving a foolish promise not to depart from the only half-thought-out details. The result is, as any architect can see, mistakes—which Brydon never would have made in stone—have with a light head been perpetrated by a department; and so it will be with the Law Courts; and a great injustice will be done to another dead architect, besides depriving living architecture of an opportunity to advance, and providing for the country a very indifferent article to boot.

When it was found necessary to enlarge the British Museum in the time of the late Government, the Chief Commissioner of Works (then Lord Windsor), even though plans had previously been prepared by the Office of Works, cast about for the most suitable architect to whom to entrust the work, and there is no reason to suppose that he ever regretted his action. Would his successor not be well advised to follow his example under really identical circumstances? I feel sure that no one wishes to take a false step, and therefore trust, Sir, that you will once more use your great influence, and that perhaps others also will take up the subject who are better able and qualified to do so than

Yours faithfully,

LEONARD STOKES.

The Indian Collection at South Kensington.

Lord Curzon, in a letter published in *The Times* of the 19th ult., enters a protest against the proposed dispersion of the collection of Indian art in the old South Kensington Museum, and pleads earnestly for the retention intact of so unique a demonstration of Oriental history and art. The main difficulty, he says, that is felt by those Englishmen who are deeply absorbed in India is in getting our countrymen to understand the outlines and features of the problem, the majesty of Indian history, the incomparable richness of Indian products, the splendour of Indian architecture, or the beauty of Indian arts. But hitherto it has always been possible to commend the ignorant or the curious to the South Kensington collection, where India, past and present, could be visualised as in no other place, and where that vast Empire, so remote and shadowy to most, but yet of such supreme interest and importance to Englishmen, seemed to start into concrete existence before our eyes.

Mr. J. D. Crace [H.A.], in a letter in *The Times*

of the 22nd ult., warmly supports Lord Curzon's protest. "As it stands," says Mr. Crace, "the collection is instructive from many points of view—one enters it surrounded by the very atmosphere of Indian art and Indian life. The growth of art and the native mode of thought become perceptible. If broken up in order to bring the work in each material into relation or contrast with European work in that material, the whole value will be dissipated. Indian art starts from a totally different standpoint: and to place, say, the Indian carving of a woodwork house-front in proximity to Italian carved woodwork or English work of a similar kind can teach nothing. They were produced under totally different conditions of climate, modes of thought, and manner of life. Nothing is gained on that side; and, instead of being able to study Indian art as such, one would have to search through many rooms and thousands of objects to find those examples which, isolated from works of the same origin, will have lost much of their beauty and suggestive character."

L.C.C. School of Arts and Crafts.

Arrangements have been made in the London County Council Central School of Arts and Crafts, Southampton Row, for a course of experimental instruction in Structural Mechanics, conducted by Mr. Percy J. Waldram, on Friday evenings, from 7 to 9.30, commencing January 8. Experiments will be performed by students upon suitable models and apparatus to determine the stresses and deflections in beams, columns, and roof principals, shoring, &c., and the stability of buttresses, retaining walls, arches, and domes. Lectures will be given upon practical design and calculations without the use of higher mathematics, and examples of construction will be worked out. It is proposed also to form groups to study the following subjects, if a reasonable number of students make application:—

- A. Working drawings and applied geometry.
- B. Foundations—shoring and underpinning.
- C. Sanitation.
- D. Specifications and estimating.
- E. Modern construction and use of materials.

These classes will run one hour each one night a week, and will be taken by Mr. S. B. Caulfield [F.].

Sir Wm. Emerson, *Past President*, has been re-appointed by the Council to represent the Institute on the Governing Body of the University of Liverpool for the term of three years provided by the Charter and Statutes of the University.

The Académie Royale d'Archéologie de Belgique has conferred the honour of Foreign Corresponding Membership on Count Plunkett [H.A.].

Mr. J. C. S. Mummery [A.] has been nominated for a third period of office as President of the Royal Photographic Society.

EDWARD AUGUSTUS GRUNING:

A MEMOIR.

By WM. WOODWARD [F.] and H. A. PELLA [F.].

Those of us who attended the funeral of "Gruning" (the familiar name by which we all knew him) at Highgate Cemetery on New Year's Day—relatives, friends, architects, surveyors, and builders—felt that the grave had taken into its cold embrace a distinct personality, a splendid type of upright professionalism, a sincere friend and brother whose loss is profoundly regretted. In many respects the mantle of his old master Professor Donaldson had fallen upon Gruning. Some of us can remember the Professor—in his very element at 9 Conduit Street—keen for uprightness of conduct, and absorbed in gratuitous work for the benefit of the profession he loved so much. That same strong sense of right pervaded Gruning's professional career, and the perfect fairness of his decisions on all matters left to his judgment and discretion has never been impugned.

Edward Augustus Gruning was born on 26th June 1837, and as he died on 29th December 1908 he was in his seventy-second year, only having taken to his bed eight or nine days before his death, the immediate cause being heart failure. He married, in 1873, Miss A. A. Cappel, who predeceased him a few years back, and he leaves two daughters and a son to mourn their loss.

We shall remember Gruning less by his architectural works than by those multifarious duties which are nowadays such important adjuncts to the architect's practice, such as actions *re* rights of light, party-wall matters, arbitrations to settle differences between architects, clients, and builders; valuations of property, &c.

He commenced his architectural career in 1863, and erected many buildings in the City, chiefly connected with the banking and assurance world. Amongst many other buildings may be mentioned the Colonial Bank in Bishopsgate Street, the London and Brazilian Bank in Tokenhouse Yard, Messrs. Frubling & Goschen's premises in Austin Friars, and De Keyser's Royal Hotel on the Victoria Embankment. His most recent work is that of the Northern Assurance Company's building in Lothbury, in which he acted jointly with the late E. W. Mountford; and he was associated with Mr. William Woodward in the completion of the Piccadilly Hotel, after the retirement of Mr. Walter Emden.

Gruning's professional benevolence is perpetuated in the work he did, as honorary architect, at the Seaside Convalescent Hospital, Seaford, Sussex; in that connected with Sir William Treloar's Homes for Crippled Children at Alton; and in the German Hospital at Dalston. The subscription lists of the Architects' Benevolent Society and other societies will bear testimony to his generosity. Imperial call to duty was responded to as an enthusiastic volunteer and good shot as captain in the High-

gate Volunteer Company, and his civic responsibilities were met as a lieutenant of the City and a liveryman of the Goldsmiths' Company.

The stalwart form, the rugged and almost monosyllabic replies and retorts of Gruning, will be sorely missed at 9 Conduit Street. He was a fair fighter, and those who had agreed to refer their differences to him knew—whether his decision was or was not favourable to their contentions—that perfectly unbiassed judgment held sway. So he was in the witness box, and, above all, "his word was as good as his bond."

His contributions to the Institute literature were rare, and the only Paper read by him at No. 9 was a memoir of his old master, Professor Donaldson, on 1st February 1886, Edward T. Anson, *Vice-President*, being in the chair. He was elected an Associate in 1860 and a Fellow in 1869, serving as Vice-President during the four years 1897 to 1901. He was a member of the old Professional Practice Committee, and afterwards of the Practice Standing Committee as established under the Charter and By-laws of 1887. He was also one of the first members of the Board of Examiners (Architecture); member of the Prizes and Studentships Committee; member of the Special Light and Air Committee, which sat some years ago; member of the Finance Committee; and member of the Board of Professional Defence.

Outside the Royal Institute of British Architects he was a Fellow of the Surveyors' Institution, an institution which he regarded with affection and admiration, and where he was always a *person grata*. He was also a member of the Surveyors' Club, and other of his engagements testified to the multiplicity of his work and to the truth of the axiom that the greatest number of honorary duties are fulfilled by the busiest of men, who are also the first to observe punctuality in the keeping of those numerous engagements and appointments which they have had thrust upon them.

The name of Gruning, too, will always be associated with the Tribunal of Appeal constituted under the London Building Act of 1894. His vigorous independence of mind was never more clearly displayed than in the work assigned to this Tribunal, and his associates will, we are sure, miss the sturdy, experienced criticism and opinion which were ever at their service.

I [Wm. Woodward] venture to add only a purely personal note or two to the above tribute to our departed friend. Gruning was one of the few men who "hit it" with my old master, the late Arthur Cates. They were men in many respects of similar build in mind and body, and I know that to their united efforts is due some of the good work which has characterised the Royal Institute of British Architects during the last quarter of a century. I have had many professional dealings with Gruning, sometimes "with him," as they say, sometimes on the other side; but I never feared him, as I knew

that I had a fair opponent, and that I should not be led into any trap by an exchange of confidences. Punctuality was one of his mottoes, and at meetings in the Street in "light" cases, be the time early or late, there was Gruning—on the stroke—puffing away at that small and well-known black pipe of his, which he enjoyed more than the finest cigar. One of my last meetings with him was at the Piccadilly Hotel on the 8th December last. We strolled together along Regent Street to 9 Conduit Street—I to attend a meeting there at 4, he one at 4.30—and I left him to walk up and down the street to farther enjoy his pipe "till his time was up," as he jocularly remarked. I little thought then that I was saying "Good-bye" for the last time to one worthy of filling a niche in the gallery of those whose careers may be well summed up in the words, *Sans peur et sans reproche*.

I [H. A. Pelly] also venture to add a personal note with regard to our friend who has gone, and I think I have some right to do this, as I commenced my articles with him on the 1st January 1874, and have been very closely connected with him in his profession almost ever since. During this long and intimate companionship I always found him a man of the most kindly nature, ever ready to help one over a difficulty and to give his best advice to the younger members of the profession whenever they came to him. I think that hardly anyone is aware of the great amount of work he did for, and the great interest he took in furthering, the interests of the R.I.B.A. If I may be allowed to speak personally, I have lost my best friend, and I believe that the Institute has seldom, or never, had a better one.

REVIEWS.

ASSORTED HOMES.

Ideal Homes. "Daily Mail" Architects' Competition. An illustrated record of the Prize Designs and many others. Class A £500, Class B £750, Class C £1,000. Price 1s. net. "The British Architect," 33 King Street, Covent Garden, W.C.

Visitors to the "Ideal Homes" Exhibition, which was held at Olympia, Kensington, last autumn, may have passed through the bewildering aisles of conflicting advertisements, and may have formed a vague notion that if a house were to be equipped with all the accessories on show it would have to be extended to the dimensions of a mansion, and its owner would have to retire to an almshouse; but they may easily have left the Exhibition without having gained the respite of that corner of the gallery where the architectural drawings awaited their notice. If such was the case, the publication of this book will enable them calmly to consider those drawings at home; moreover, it will enable architects to study them more closely than they could have done at Olympia.

A few of the designs have already appeared in the professional and other papers, but most of them are now published for the first time. The assortment is not complete, but it has been carefully selected, and in addition there are illustrations of some of the cottages erected at the Franco-British Exhibition—inserted, no doubt, by way of advertisement of their builders and others. There is a short introduction by the Editor of the *British Architect*, in which he reviews the problem of cottage design and its limitations: but it is a pity that the main stipulations of the competition are not quoted, and that there is no index.

In the introduction it is suggested that "you will gain in economy and perhaps in artistic effect by having your bedroom ceilings well up into the slope of the roof," which seems to be a very pretty way of referring to attics. Most of the schemes embody this suggestion, with the result either that the windows are too low or that the roof is too complex. The objection to a complicated roof is not apparent in the perspectives, which show the cottages nestling in the charm of a summer sun, but we have been very forcibly reminded by recent snowstorms that our ideal home must shelter us from weather that is by no means ideal. We do not like to see a roof broken up into pockets or a valley intersected by a chimney. In this connection, on the other hand, there are several designs in which many strange devices have been adopted in order to collect all the flues into one stack. The objection to low windows is also emphasised in dull weather.

On page 37 it will be noticed that a house estimated to cost £1,000 has been put into Class B, with a £750 limit: but we do not think that this is a very serious error, for we are inclined to be sceptical as to the probable cost of a good many others, albeit they are rightly classified. We should like to buy some of them at their author's valuation and sell them at our own.

In fact, if "this little brochure" is destined to "fall into the hands of many who contemplate building," we trust that they who wish to spend £750 will seek their ideal in Class A (to cost £500), and that they who can afford £1,000 will not look beyond the plans marked £750. We hope this for the peace of mind of the architects they will employ, especially in view of by-laws and the like. An architect will notice that in many cases the windows are unduly small and the chamber plans are misleading, so that the designs appear to represent bigger buildings than in fact they do; but it would be difficult to explain all that to the satisfaction of a client.

No doubt the Assessor, Mr. E. L. Lutyens, found it a difficult task to allocate the medals among so many fearful and wonderful efforts to dodge the formula for cubing up buildings. There is an idea in each design, but naturally the ideal has been achieved in none. Personally we are attracted in each class by the design which has gained the bronze medal, the authors being respectively Mr.

W. Rupert Davison, Messrs. Hardy & Harris, and Mr. W. Curtis Green. Also we like the design of Mr. C. Wontner Smith in Class B.

The book will serve a good purpose if it helps the public to take an interest in domestic architecture and to realise that the ideal home is a cottage.

J. NIXON HORSFIELD [A].

ALLIED SOCIETIES. NORTHERN ARCHITECTURAL ASSOCIATION.

The following are extracts from the Address delivered to the Northern Architectural Association by its President, Mr. Geo. T. Brown [F.], at the Opening Meeting of the Session, 11th November 1908:—

In greeting you formally for the first meeting of the Winter Session of the fiftieth year of our existence as the Northern Architectural Association it must be very gratifying to us that we as an Association are in what may justly be considered a perfectly healthy condition, and although far from the ideals we may hold of the position and influence we hope to attain, I think our growth, the work we have done, and our desires for the future augur well for the years that are before us.

With a total membership of 253, of which number 170 are Members and Associates, and 70 of whom are members of the Royal Institute, and being ourselves in point of number the third largest Society allied to the Institute, and second so far as our representation on the Institute is concerned, it seems a remarkable fact that our representation on the Council of that body still depends on our being placed there annually by a majority of votes. It is true that during the last two years our Association has been represented by its President; but there have been years when we had no representation at all, while other Societies, with as few as thirty-seven members and as small a representation on the Institute as eleven, have been represented on the Council by their President. It may be remembered that, so far back as 1896, as the result of an expression of opinion on this matter, Mr. Oswald was re-elected on the Institute Council. I hope it will not be long before something is done to make our representation on the Institute Council permanent, it being at present an instruction from the Council to the Charter Revision Committee to take the matter into consideration with a view to suggesting some constitutional method whereby those associations with the greatest number of Fellows and Associates among their membership shall have a permanent representation on the Council of the Institute. I feel that such an arrangement would result in the term "Allied Society" being something more than a name. Surely our alliance would be more productive of good and our Province more closely knitted to the central body if we were able permanently to have a voice in the deliberations of the Institute Council. We may be said to have some slight grounds for desiring such a permanent arrangement from the fact that it was from this Association that the first idea emanated of what originally became the Architectural Alliance, and that this Architectural Alliance, so far as I can gather from our past

records, developed ultimately into the Allied Society scheme of the Institute.

The converse side of this question is not without important features. The right accorded to Allied Societies to be represented on the Institute Council is one which should be highly prized by them, and accordingly taken advantage of. It is not only good for the profession in the provinces that this should be so, but I also know that there are London members who welcome information as to the movements outside the Metropolis, recognising that the whole profession is so interdependent that we cannot be affected in any way as Allied Societies without the resulting ripple causing vibration through the whole structure. There have also been times when the Allied Societies have moved somewhat in advance of the Institute on certain matters.

We have, as an Association, during the past year been of use in having unsatisfactory conditions in local competitions modified and brought more into line with the conditions issued by the Institute. In one case our advice was well received and acted on at once; in another it became necessary to circularise our members, advising them to leave the competition alone unless modifications were made. This resulted in the conditions being improved. It is evident that although in some instances unsatisfactory conditions are the result of ignorance, in others it is not the case. I may instance one in particular where a prominent member of the profession was acting as Assessor, and competitors were informed by the promoters that the conditions had received his sanction. Action of this kind can only successfully be taken if our members are loyal to the Association in refraining from competing when circularised, even if against their self-interest; and if we ask for this loyalty from members wishful to compete, how much more should we expect loyalty to the profession from those appointed to assess in competitions, and who have the opportunity, if not always of drawing up the conditions, certainly of perusing them, and asking for amendment if they are unsatisfactory. Indeed, I consider, if it were necessary, an architect should, having regard to his obligations to the profession and to his own self-respect, rather withdraw from the duties of Assessor than allow his name to be identified with a competition the conditions of which differ materially from, and on important points fall below, the standard of those authorised by the Institute Competitions Committee.

It is interesting to note, with reference to the members of our Association being circularised asking them not to take part in competitions, that the Manchester Society recently approved a by-law as follows:—"A member shall be considered to have failed in the observance of a lawful regulation of the Society, or of a lawful regulation, by-law, or order of the Council, within the meaning of Article 61 of the Society's Articles of Association, and shall be liable to the penalties therein stated, if he shall submit, either directly or indirectly, a design in any architectural competition the conditions of which are unsatisfactory to the Council, and of which notice has been given to the members by the Secretary."

This by-law has not yet received the sanction of the Institute Council, but if it does I think our Manchester brethren will have set an example which we should carefully take into consideration, as if this power were quite general the competition system throughout the country would be practically settled, and no architects of repute would then ever enter a competition in which the con-

ditions having been brought before the Council of any Allied Society, and declared to be unsatisfactory, were reported to the Institute as such.

In the Annual Addresses given by the Presidents in the past, one subject which has appeared year after year, and which might almost be referred to as a hardly annual of architectural contention, is about to be referred to as such. I hope, for the last time: for by the recent action of the Institute the vexed question of Registration, as the majority of provincial practitioners would like to have seen it dealt with, has been definitely removed from the sphere of active discussion. The difficulties in dealing with this subject, which were very obvious to the Committee appointed by the Institute to consider the matter, such Committee representing both sides of the question, were felt to be so great that it would have been impossible to get Parliament to legalise the title of architect except on lines which would certainly not have been satisfactory to the profession as a whole. The Committee, after exhaustively considering the matter, recommended as far back as April 1906 that the Charter should be revised so as to raise the qualification of the profession, and that a Bill should be submitted to Parliament to give statutory force to the Charter, legalise the Scale of Charges, and deal with other important matters. This recommendation was adopted at a general meeting of the Institute, the details being referred to the Institute Council for further consideration and report, and ultimately at a general meeting in December of last year the Council's proposals for the revision of the Charter and By-laws, with slight verbal alterations only, were carried. It is now probable that the Charter will be granted at an early date, and steps will then be taken to submit the Bill to Parliament, so that we are probably within sight of what I hope will be regarded as a satisfactory conclusion to a troublesome matter in the history of the profession—one on which there has been considerable difference of opinion and much warmth of feeling, but one on which each side, while not having got all they wanted, should be satisfied that the decisions come to are likely to produce the most satisfactory results with regard to the advancement of architecture, and the placing of the profession generally on a sounder basis.

The result of this agitation—while it will not benefit largely the present generation—will have important effects on the profession in the future, and as we as a profession are now reaping the benefits of the work of the early days of this and kindred Associations, so the younger generation will benefit very largely by the result of the prolonged controversy which is now, we hope, at an end.

The final decisions come to in this matter are to a great extent the result of the insistence of the provincial Societies, which have been much more adversely affected by the lack of something in the nature of registration than architects practising in London.

With regard to legislation affecting the profession, the last year has been an important one in that it has seen the introduction of the "Housing and Town Planning Bill." I am afraid, however, that the additional powers of control to be entrusted to the Local Government Board are not likely to be as successful as we could wish, judging from the way the Board have neglected to administer their powers in the past. According to the existing laws, it should be impossible for any tenements to be overcrowded and any slums

to exist, and it is to be hoped that the Local Government Board, when the Bill becomes law, will be able to combat successfully the interested opposition which always springs up when schemes for improvement are promoted.

The Bill is one of great interest to architects, particularly the second part, which deals with the development of towns: and in referring to it somewhat at length I do not think any apology is needed, as an outline of its provisions must of necessity interest us all. I am sure, however, I shall have your forbearance and sympathy, for, after having carefully read the text of the Bill, the title, which is "A Bill to amend the Law relating to the Housing of the Working Classes, &c.," suggests that it would be a kindness to humanity if a Bill could be brought in to amend the law as to the methods of Bill-making. The whole Bill is a most complicated jumble, never saying definitely what is proposed, but being framed on the method that everything in its clauses is to be taken in conjunction with various clauses in past Acts of Parliament relating to the subject of housing, and one has either to be connected mentally with the framers of the measure in a "two minds that think as one style," or to laboriously look up the previous Acts, and try to grasp their connection with this Bill. . . .

Mr. Brown, having reviewed at length and criticised the provisions of the Bill, continued:

The Bill generally should be productive of satisfactory results, inasmuch as it must be admitted that the extension of towns ought not to be allowed to proceed on any haphazard lines, such as those caused by land speculators buying land and laying it out to the best financial advantage, often in a way which, although an architect has to carry out the instructions of his client in order to produce good financial results, is most unsatisfactory to his judgment as to what is desirable, both with regard to the artistic laying-out of the ground and the style of the houses to be put on it.

One thing which might have been included in the Bill, but which has not been dealt with, is the valuation at which land can be purchased. That Municipalities or Educational Authorities wishing to purchase land have to pay considerably more than its value is well known. The only way apparently to get fair valuations will be by the taxation of land values, and allowing the owners to put their assessment on the land for the purpose of such taxation, the values so put upon the land to be the basis taken at any time for purchase by public authorities. The probable reason that this matter has not been included in the Bill is that it would open up a most difficult and controversial question, which would probably have wrecked the Housing and Town Planning Bill, as it would inevitably, in some cases, deal with land valuations near a town very unfairly. Until something is done on these lines, however, it will continue to remain difficult for Public Authorities to purchase land at anything like reasonable values.

The Bill—unless the purchase of land by Municipalities becomes very much more extensive than can be anticipated at present—can only affect the profession for good, as it will necessitate the most skilful treatment of laying out estates, and give architects best equipped for the work the greater opportunities; and while the general scheme will be in the hands of the Public Authorities, owners of land, although they will have the principal lines of their estates laid down for them by the Municipalities, will yet—as they do now—

employ architects for the general carrying-out of their estate work and the safeguarding of their interests against undue interference by Local Authorities: for it must not be forgotten that they will have in nearly all cases of differences of opinion the right of appeal to the Local Government Board.

Whatever is the ultimate form of the Bill when it becomes law, . . . it is our duty, and the duty of the Royal Institute of British Architects, to do their utmost to look after the interests of the profession and take such steps as are necessary to prevent the gradual drifting into municipal hands of the carrying-out of work which we as architects are justified in considering a legitimate part of our practice.

In a recent communication to this Association from the Manchester Society of Architects it was mentioned that that Society had had some correspondence with the Institute on the Town Planning Bill, with, among other things, special reference to the question of reappropriation. The Institute, in replying, while it supported the Manchester Association in its general action, did not consider such matters as reappropriation were within its scope as an artistic body. I venture respectfully to differ very strongly from that pronouncement. The practice of members of our profession—particularly in the provinces—necessitates their advising their clients on many points of this kind, and it is an architect's duty to those who come to him for advice and professional opinion to keep himself well informed on all such topics. The provincial members of the Institute more than outnumber those in London, and I consider it is the duty of the central body to be interested and to take all necessary steps to assist as far as possible in all points that arise which affect the practice of members outside London; and it should not be forgotten that, although we are an artistic body, yet the practice of the majority of architects who are connected with the Institute embraces practical business matters as well, and that to ignore this would mean that many schemes might drift out of our hands and be treated in a purely commercial way, quite divorced from architectural effect and artistic treatment, unless we make strenuous endeavours to retain them within our scope.

MINUTES. V.

At the Fifth General Meeting (Business) of the Session 1908-09, held Monday, 4th January 1909, at 8 p.m. Present: Mr. Edwin T. Hall, *Vice-President* in the Chair, 49 Fellows (including 15 members of the Council) and 63 Associates (including 2 members of the Council).—The Minutes of the Meeting held 14th December 1908 p. 152 were taken as read and signed as correct.

The Hon. Secretary having announced the decease of William Milner Fawcett, M.A., F.S.A., *Past Vice-President*, and Edward Augustus Gunning, *Past Vice-President*, it was resolved that letters of sympathy and condolence be addressed from the Institute to the relatives of the late members, and that the letters should contain an expression of appreciation on the part of the General Body of the services the late members had respectively rendered to the profession and to the Institute.

The Hon. Secretary having formally acknowledged the receipt of books presented to the Library, a vote of thanks was passed to the donors by acclamation.

The following Associate, attending for the first time since his election, was formally admitted by the Chairman—viz. Walter Maxted Epps.

The following candidate who had passed the Colonial Examination was elected Associate by show of hands—viz. Lieut. Hugh Woodcock (Capt. of Good Hope).

The Chairman read a letter announcing that His Majesty the King had been graciously pleased to grant the Institute's petition and had sanctioned the new Charter.

Mr. Max Clarke, F.R.I.B.A., in accordance with notice, asked the ages of the 26 gentlemen nominated at the meeting of 2nd November for election as Fellows but afterwards withdrawn from candidature. The Chairman replied that the Council's business was simply to see that the Charter and By-laws were complied with; that those only knew who that a candidate should be over thirty years of age, and that the Council had no power to require the exact age to be stated.

Mr. G. L. Nichol, F.R.I.B.A., who had given notice of his intention to move a resolution demanding an explanation of the circumstances leading up to the proposed suspension of part of By-law 9, and directing that a motion to suspend should be moved, withdrew his resolution on the ground of the altered circumstances brought about by the granting of the new Charter.

Mr. K. Gammell, M.P., in accordance with notice, moved:—That the Council of the Royal Institute of British Architects shall forthwith give effect to the will of its members, as expressed by the Resolution passed in open meeting on 7th January 1907, whereby this Institute showed its disapproval of the principle of Limited Competitions for Public Buildings erected with public moneys, by forwarding a copy thereof to the Council of every county, county borough, and borough in England and Wales before the 10th day of April 1909. The resolution was seconded by Mr. C. H. Brodie, F.R.I.B.A.

Mr. A. W. S. Cross, F.R.I.B.A., moved as an amendment that the words "forthwith" be omitted, and that the resolution stop at the words "January 1907." Mr. George Hubbard, F.S.A., F.R.I.B.A., seconded the amendment, and it was ultimately accepted by Mr. Gammell.

A motion by Mr. W. Henry White, F.R.I.B.A., seconded by Mr. J. S. Gibson, F.R.I.B.A., that the Meeting proceed to the next business, was put to the vote and carried by twenty-eight votes to forty-six.

An amendment to omit from the resolution all the words after "Members," moved by Mr. J. Nixon Horsfield, M.P., and seconded by Mr. Horace J. Hildson, F.R.I.B.A., was not voted upon.

Mr. Cross's amendment, having been voted upon by show of hands and declared carried, was finally put from the Chair as the substantive motion, and it was—

RESOLVED, That the Council of the Royal Institute of British Architects shall give effect to the will of its members as expressed by the Resolution passed in open meeting on 7th January 1907.

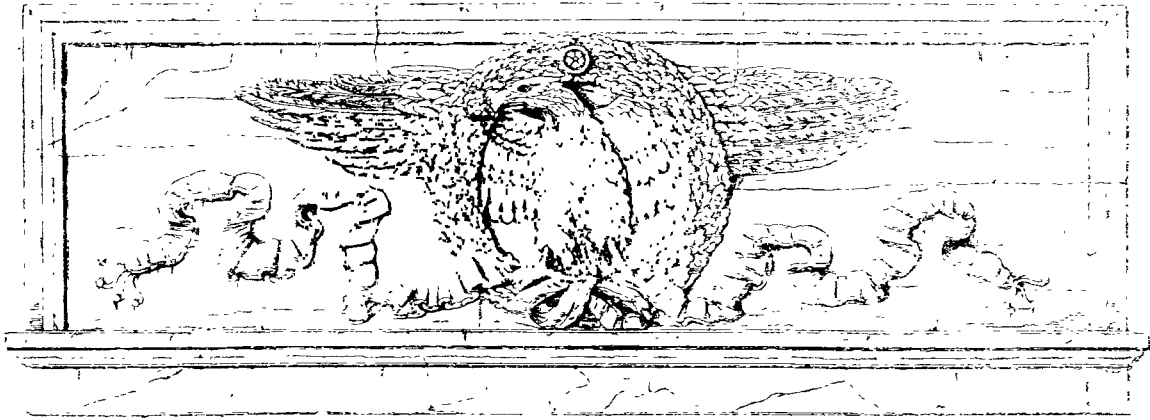
The proceedings then closed and the Meeting separated at 10 p.m.

The late Cuthbert Brodrick, Architect.

Green Street Chambers, Leeds. 15 Jan. 1909.
To the Editor JOURNAL R.I.B.A.

DEAR SIR,—I am preparing a sketch of the life and work of the late Cuthbert Brodrick, the architect of the Leeds Town Hall, &c. &c. I have in my possession the designs for several important buildings executed by him. There must, however, be in existence other designs prepared by him, and I should be very grateful if the owners would allow me to see them. The greatest care would be taken of them, and they would be returned as soon as they have been examined. Yours faithfully,

BUTLER WILSON, F.R.I.B.A.



PUBLIC ABATTOIRS. By R. STEPHEN AYLING, F.R.I.B.A.

Read before the Royal Institute of British Architects, Monday, 18th January 1909.

THE subject of my Paper is one which I introduce, not without some diffidence, from the fact that a slaughter-house, whether public or private, is naturally associated with taking the lives of animals in cold blood, when they are presumably in the best of health, and under conditions which preclude the slightest chance of escape. This, to the normal human being, naturally conveys a feeling of repulsion, which is to a large extent absent when the quarry, either fish, flesh, or fowl, is killed in a legitimately sporting manner for the purpose of providing food. Whilst human beings, however, remain carnivorous, animal food must be supplied: and in order to do this, buildings must exist for the purpose of slaughtering. From a humanitarian point of view it is our bounden duty to animals that they should be killed as painlessly, and under the best conditions possible: it is a duty to ourselves that meat supplied for human consumption should be free from disease: that those places in which the work of slaughtering and dressing meat foods takes place should be as hygienically perfect as possible: and it is an important matter of policy that by-products and other valuable materials should be utilised to their fullest extent. These essentials can only be achieved by the establishment of public abattoirs throughout the country, and by the elimination of private slaughter-houses.

It may be asked how these matters affect us as architects. In the future—and I sincerely hope the near future—when the public abattoir system is established as firmly here as it is to-day on the Continent, there will be a very wide field open for the English architect to design these utilitarian but certainly complex buildings, well planned and with a distinctive character.

The Germans claim to be pioneers in establishing public abattoirs. As early as the fourteenth century such buildings were erected in Germany, and even at that date laws were in force forbidding the butchers to slaughter cattle elsewhere. I think, however, that to France must be awarded the credit for erecting (about forty years ago) the first really comprehensive abattoir scheme—at La Villette, Paris—on lines the main principles of which are, speaking broadly, to-day followed in the finest Continental works. I shall refer in detail to these buildings later. It was not till about ten years afterwards that the subject was seriously considered in Germany, and since that time many hundreds of public abattoirs have been erected. By a gradual process of evolution, founded on practical experience, in many respects

the planning of German abattoirs to-day approaches perfection, and at the present time, in addition to the many existing buildings, new ones are being erected all over the country.

In England and Wales to-day we have nominally about ninety-eight public abattoirs, but nearly two-thirds of these buildings are very small, or obsolete in planning; in fact, a large number cannot be seriously considered as public abattoirs at all. Even if they were all satisfactory, this number would represent one institution to about every 330,000 inhabitants. As a matter of comparison, taking one-third of the existing abattoirs as being reasonably representative buildings—and this is certainly a liberal allowance—we have to-day in England and Wales one public abattoir to each million of the population. I think it is therefore apparent that we have hardly reached the fringe of an "abattoir system."

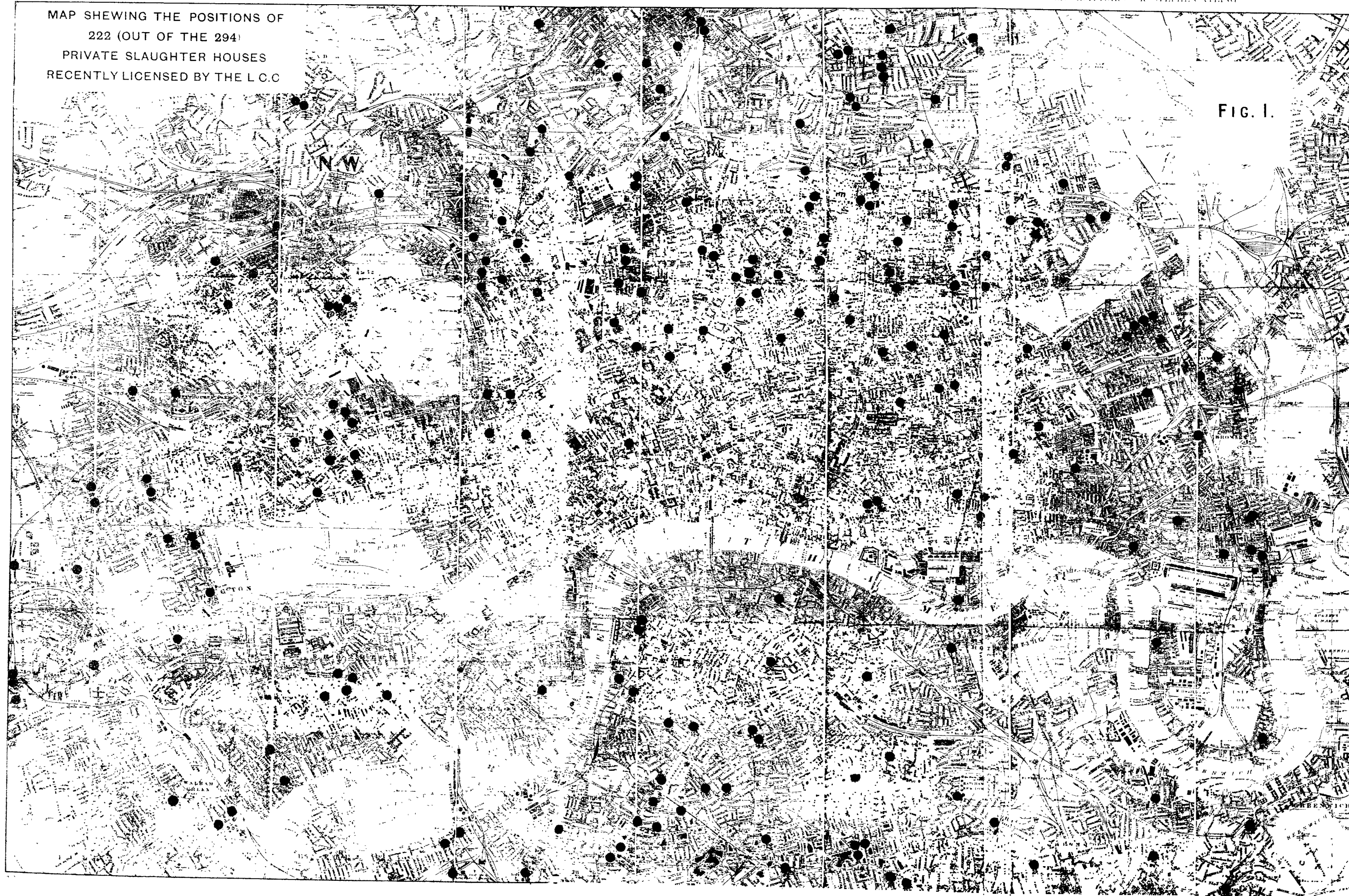
In Paris to-day there are two splendid municipal abattoirs, supplying the meat for the whole of the city, and not a single private slaughter-house. In London alone to-day we have about 294 private slaughter-houses, and not a single municipal one. The City Corporation Abattoir at Islington, and that at Deptford for killing foreign imported cattle, cannot be considered as such.

On the map of London [fig. 1] I have shown the disposition of the private slaughter houses, licensed last year by the London County Council, in the area covered by the map published in the London Directory. The map shows 222 private slaughter-houses in that area, and it will be seen that in nearly every case they are in the midst of residential property. The positions are indicated by what, I think, may well be described as "black spots." Happily, licences are now only granted yearly to persons who conform to the regulations of the Council; but even under these conditions the fact that they should exist at all, many in populous districts and surrounded by houses, is an offence to humanity, hygiene, and economy. If the proprietor of every private slaughter house in London rigidly complied with all the regulations of the London County Council and the suggestions of the Local Government Board, the system would still be a bad one. In making this statement I know that I am treading on controversial ground, but I shall endeavour later to support my contention that private slaughter-houses should be, and must be eventually, superseded by public abattoirs. Considering the matter simply from a hygienic point of view, it is somewhat surprising that whilst other civilised nations have forged ahead we have remained indifferent. We pride ourselves—and I venture to think, justly—on the enormous strides we have made in sanitary science during the last fifty years, but on this particular subject we are at least a century behind our Continental neighbours. Recently plans have been prepared for a public abattoir in Constantinople, and the work either has been or shortly will be commenced. When this has been accomplished, London will stand in "splendid" isolation as being the only European capital without such an institution.

The results from the establishment of hospitals, sanatoria, public libraries, public baths, open spaces, and even sewage schemes are kept constantly before the "man in the street," whilst slaughtering is carried on in places hidden from sight; and the average citizen, so long as his meat-supply is palatable and apparently wholesome, remains not only indifferent but actually wishful to know nothing about the subject. Some short time ago an article appeared in the local paper of one of our largest provincial cities. The writer apologised for mentioning such a gruesome subject as slaughter-houses, and stated that he did so only from "sheer pressure of civic necessity," and concluded that "there were more attractive things to read about than slaughter-houses." For many years past I have been greatly interested in the subject, and should be the last person to disagree with this statement; but I feel very strongly that reform can only be accomplished when we have the courage boldly to face the "unattractive" subject, and candidly acknowledge that it is a really important one, rather than to shut our eyes to existing conditions and continue, if not in blissful ignorance, at any rate in blissful content.

MAP SHEWING THE POSITIONS OF
222 (OUT OF THE 294)
PRIVATE SLAUGHTER HOUSES
RECENTLY LICENSED BY THE L.C.C.

FIG. I.



Quite recently the question of erecting a public abattoir in a certain provincial town of about 49,000 inhabitants has been somewhat energetically discussed. The local paper stated in an article upon the subject that "nearly the whole of the private slaughter-houses within the borough could be closed on the ground of insanitation." The Medical Officer regarded this statement as a personal reflection on the work executed by him and the Sanitary Inspector, and in his Report to the Committee said that he only knew of "two slaughter-houses in the area that could be called insanitary." That any at all should be allowed to exist in the twentieth century, and in a well-regulated populous English town, can only be described as scandalous. It is not surprising that the Medical Officer of Health concludes his report by saying, "It is very desirable that a public abattoir should be erected for the town."

Presuming this case fairly to represent the average state of affairs, viz. one insanitary slaughter-house to every 24,500 inhabitants, on this basis we have to-day in the United Kingdom about 1,680 of these buildings. I have no hesitation in stating that this estimate is a low one. The legal machinery for closing them is inadequate and cumbersome, and only when Parliament seriously takes the matter in hand, as on the Continent, can any real reform be instituted.

In Germany and in other Continental countries public abattoirs have been and are being established in nearly every town of a few thousand inhabitants, and the private slaughter-houses compulsorily closed. A small measure of satisfaction may, however, be felt in the fact that in London the private slaughter-houses are being gradually closed, as 1,429 existed in 1874 in London alone, whilst there are now only 294, a diminution of nearly 80 per cent. of the number.

The time at my disposal will not allow me to enter fully into the question of the merits and demerits of the public *versus* the private slaughter-house, and I must therefore only briefly refer to these matters. A few of the demerits of the private slaughter-houses usually found in nearly every town or city may be summarised as follows:—

(a) They are generally situated in crowded districts, frequently behind the butchers' shops, and are often old stables or other buildings converted into slaughter-houses.

(b) Being scattered, direct rail or waterway transit is impossible, so that the animals to be killed have to be driven through the streets to the danger of the public.

(c) Being private property, only the Medical Officer of Health and the Sanitary Inspector have access to them; and as killing may be carried on at all hours of the night and day, it is physically impossible for these officers to be on the spot continually, and thus a large amount of diseased meat passes into the market practically without inspection. For instance, three years ago (and possibly the same to-day) one city in the kingdom with 110 private slaughter-houses employed two sanitary inspectors for the district. A portion only of their duties was to inspect the slaughter-houses and the carcasses of the animals killed for food. Comment on the impossibility of these officers being able to do so efficiently is needless, even if the whole of their time were devoted to the work.

(d) For the same reason it is quite impossible to detect cases of cruelty to animals. That such exists, more from want of training of the slaughterers than from wanton brutality, cannot be doubted; yet whilst over 7,000 convictions were obtained last year alone by the R.S.P.C.A. for cruelty to animals generally, only fifteen convictions were obtained for cruelty in slaughter-houses in a period extending over the last few years.

As in London alone about 560,000 animals per annum are killed for food, it is obviously easier to detect the cases of cruelty in the public streets than in the private slaughter-houses. Again, the slaughterers only killing a few animals per month, or even year, cannot attain the dexterity or experience of those continuously engaged on this work, nor can the private

batcher afford to provide such apparatus for painless killing as can be supplied in the municipal institutions.

Having dealt with some of the demerits of the private slaughter-houses, I will now discuss shortly their advantages to the community or to the tradesmen. *They have none.*

The whole of the above-mentioned defects inseparable from the system of innumerable scattered private slaughter-houses are only a few of the most apparent. These defects can be, and are, prevented in the public abattoir. Almost invariably on the Continent (and sometimes in England) these buildings are erected in the suburbs, and in close proximity to a railway, so that the necessity for driving animals through the streets does not exist. Diseased meat sold for food is practically unknown owing to the employment of fully qualified veterinary inspectors, who are continually on the spot while animals are being killed. Wanton cruelty is reduced to a minimum, as the municipal buildings are under the fierce light of publicity, the officials are continuously in attendance, and only trained men are engaged as slaughterers.

I have been recently called to task in one of the professional journals for having the temerity even to discuss the question as to whether public abattoirs can be made to be self-supporting, the writer stating that such institutions are a necessity, and whether they are conducted at a profit or a loss is more or less immaterial. With this I am quite in accord; but I unhesitatingly state that if, when a public abattoir is built suitable for the needs of the district, properly managed, and the surrounding private slaughter-houses compulsorily closed, they can be, and should be, self-supporting or profitable. Even to-day in England, of our many public abattoirs, old and small as most of them are, and competing as they do with the private slaughter-houses, 41 per cent. of them are either self-supporting or profitable, even in face of the fact that in Birmingham there are about 131 private slaughter-houses, in Manchester 90, in Leicester 78 (and the list could be added to indefinitely), all competing with the one abattoir in each city. I think this result is not only eminently satisfactory, but even surprising.

In his book on *Slaughter-house Reform*, Herr Carl Heiss states that in Germany every one of the public abattoirs—and there are many hundreds—are without exception profitable, that the profits go towards reducing the rates, and that meat food has decreased in price and improved in quality. When we consider that the German and other Continental abattoirs are erected on a scale of magnificence which we should never dream of in England at the present time, this result is all the more astonishing.

I will now mention a few of the salient points which I think should be observed in a well-planned abattoir. Existing buildings of this kind can be, broadly, divided into two classes, those on the "block system," where all the main departments are under one roof, and the "separate system," where the main buildings are separated by roads or passages. The main buildings of a moderately sized abattoir consist of lairs for various animals, slaughter-hall, cooling-room, administrative block, superintendent's house, cold stores and chill rooms, destructor, buildings for the preparation of by-products and offal, workmen's mess-rooms, kitchen, baths, &c., and pathological room. An adequate site should always be provided sufficiently large to allow for future extension of the buildings. Where well-planned slaughter-courts, lairs, and cooling-rooms are provided, the other buildings are relatively easy to arrange.

In most of the old abattoirs the slaughtering was carried out in a series of chambers divided from each other by brick walls, with the result that such a system was little better than a series of private slaughter-houses, with the single advantage that they were concentrated instead of being scattered. I cannot too strongly condemn this method, which to-day is nearly obsolete, but unfortunately not quite so. This fact has led the authorities of some existing abattoirs (quite recently, for instance, at Edinburgh and Buda Pesth) to

abandon the old buildings and supersede them with others planned on modern lines. The more modern open-hall system has taken its place, and embraces the following good points—light, air, ventilation, ease of inspection, and facilities for keeping the place scrupulously clean.

It is generally acknowledged that animals, especially beasts, suffer pain or fear at the sight or smell of blood, and also that the flesh of an animal killed in fear deteriorates in quality. So that, not only from a humanitarian, but from a business point of view, the planning of the slaughter-hall should be so arranged that no animal is allowed to see another killed. This is difficult in the large open slaughter-hall where a number are being slaughtered at the same time, but the difficulty has been cleverly overcome at the Chatham Abattoir, to which I shall refer later. The lairs should naturally be placed near to the slaughter-courts, with easy access, but so arranged that no animal can see the work in progress. The cooling-room should either join or be near the slaughter-court, and be connected to it by overhead transit rails for conveying carcasses. One cannot over-estimate the advantages of the cold store, and every abattoir, whether large or small, should be provided with this valuable adjunct. It enables the butcher to kill at his convenience, and to store his meat, till such time as it may be required for sale, in a perfectly healthy condition. The temperature is kept a few degrees below freezing-point, so that the meat does not require thawing, as in the case of imported frozen meat. I shall deal with the other buildings in the few notes on plans exhibited on the walls.

I am showing some illustrations of the magnificent Cattle Market and Abattoir of La Villette, Paris, designed by M. Janvier, and opened in 1867. Some idea of the size may be gathered from the fact that the plan is drawn to the scale of about 140 feet to the inch: the area is 105 acres, and about two and a half million animals are killed there per annum. The site is almost an ideal one for the purpose, as it is bounded on the east by the railway and on the west by the canals, one of which crosses the site in the centre, so that easy means of water transit are provided, which obviates the necessity of driving cattle through the streets and facilitates the work of removing refuse. The site is practically divided into equal parts, one half devoted to cattle markets and stables for live animals, and the other part for lairs, slaughter-courts, and cooling-rooms. Time will not allow me to describe the buildings in detail, but I may mention a few of the principal points in planning. Monday and Thursday are the market days for the sale of live animals, Tuesday and Friday are devoted to slaughtering, and Wednesday and Saturday for dressing and carting the carcasses. On the market side are a large number of buildings for offices, caretakers, Customs officers, fire station, &c., and a magnificent old fountain removed from the Place du Chateau d'Eau. In the centre are three enormous markets for sheep, beasts, calves, and pigs, the largest covering an area of nearly five acres, all under a single roof. Separated from the market by the canal, spanned by bridges, approached by stairs and sloping ways, is the portion devoted to the abattoir proper. It will be seen that the main buildings consist of a number of blocks, on either side of which are lairs, with a waiting-court in the centre, and an equal number of blocks with cooling-rooms on either side and slaughter-courts in the centre. These buildings are arranged alternately, and each is surrounded by wide avenues, many of them well planted with trees. It is thus necessary to bring the animals from the waiting to the slaughter court, along roads at times greatly impeded by traffic. Practical experience has taught the lesson that the slaughter-courts are too narrow to allow of the necessary space for animals to be killed on each side. Many subsidiary buildings are placed on the other portions of the site.

At the time when these abattoirs were built scientific refrigeration was in its infancy, so that in the original scheme no provision was made for cold storage. A large cold store with refrigerating plant was erected a few years ago, but only of sufficient size to deal with the

meat supplied for the army. In recent years adverse criticism has been made on the planning of the northern half of the abattoirs, but it must not be forgotten that they were erected over forty years ago, and that the finest Continental abattoirs of to-day have been to a large extent built up on the "bones" of La Villette. These buildings can almost be compared chronologically with the hobby horse and the modern bicycle, and I think it is greatly to the credit of the late M. Janvier and his French colleagues that the scheme is still considered a magnificent one, the present-day German abattoirs only differing in detail rather than in principle. The Paris authorities, however, recognise the necessity for having increased accommodation for refrigeration, that improvement can be made in the passage of animals from the lairs to the slaughter-hall, and additional facilities for carting the meat. Quite recently, therefore, M. Leon Bonnenfant (one of the city architects) prepared a scheme embracing these requirements which was shown in a series of beautiful drawings lately exhibited at the Franco-British Exhibition. Since that time, however, some small alterations have been made, and owing to the courtesy of M. Leon Bonnenfant I am enabled to exhibit a plan and a bird's-eye view of the last project. As will be seen from the drawings, the general "lay out" of the main buildings is vertical rather than horizontal, as in the present buildings: and whilst the same accommodation is provided as in the present slaughter-houses, the means of transit and circulation are enormously increased. A large refrigerating-hall is placed at the end of each block of lairs and slaughter-courts. The estimated cost is about £1,000,000, and when completed will be the "last word" on this subject.

At the time La Villette Abattoirs were built it was thought they would be large enough to provide all the meat wanted in Paris, but this was found to be incorrect, and a smaller one was opened in 1897, designed by M. Ernest Moreau, architect, at Vaugirard, to supply the needs of the inhabitants on the left bank, viz. about a quarter of the population of Paris. The area occupied is about twenty-five acres, and over 600,000 animals are killed annually. The main buildings consist of four large blocks, similar in plan, and each containing lairs, waiting-court, slaughter-court, and cooling-rooms. The animals are enabled thus to be driven direct from the lairs into the large waiting-court, where they pass into the slaughter-court, are killed, and the carcasses taken into the adjoining cooling-rooms. Many points which practical experience showed were defective at La Villette are here remedied, in addition to the great improvement in circulation and the space for cartage. At the old abattoir the slaughter-courts are 33 feet wide, and the work is carried on at each side: at Vaugirard they are 29 feet wide, and killing only takes place on one side. The remaining buildings on the site are the abattoirs for pigs and horses, offices, Customs House, auction mart, &c. I regret it is impossible to describe the two buildings more fully in detail, but to do so would occupy the whole of the time at my disposal.

As regards the architecture of these two groups of buildings I think a glance at the photographs and illustrations will make you agree with me that not only the planning but the exterior and interior treatment also is masterly. Without the slightest over-elaboration, these large utilitarian buildings are so impressive and suitable to their purpose as to compel admiration.

I am showing illustrations of three typical German abattoirs, viz. those at Berlin, Leipzig, and Offenbach. Any attempt to describe these buildings in detail would take up too much time, and I must therefore leave the plans to speak for themselves. They show the usual German arrangement of a cart roadway between the slaughter-hall and the cooling-rooms. In the most recent buildings this roadway is covered by a glazed roof. As in Germany not only slaughtering but the general work of an abattoir is carried out with almost military precision, the danger of contaminating the meat of the freshly killed animal by passing over the roadway

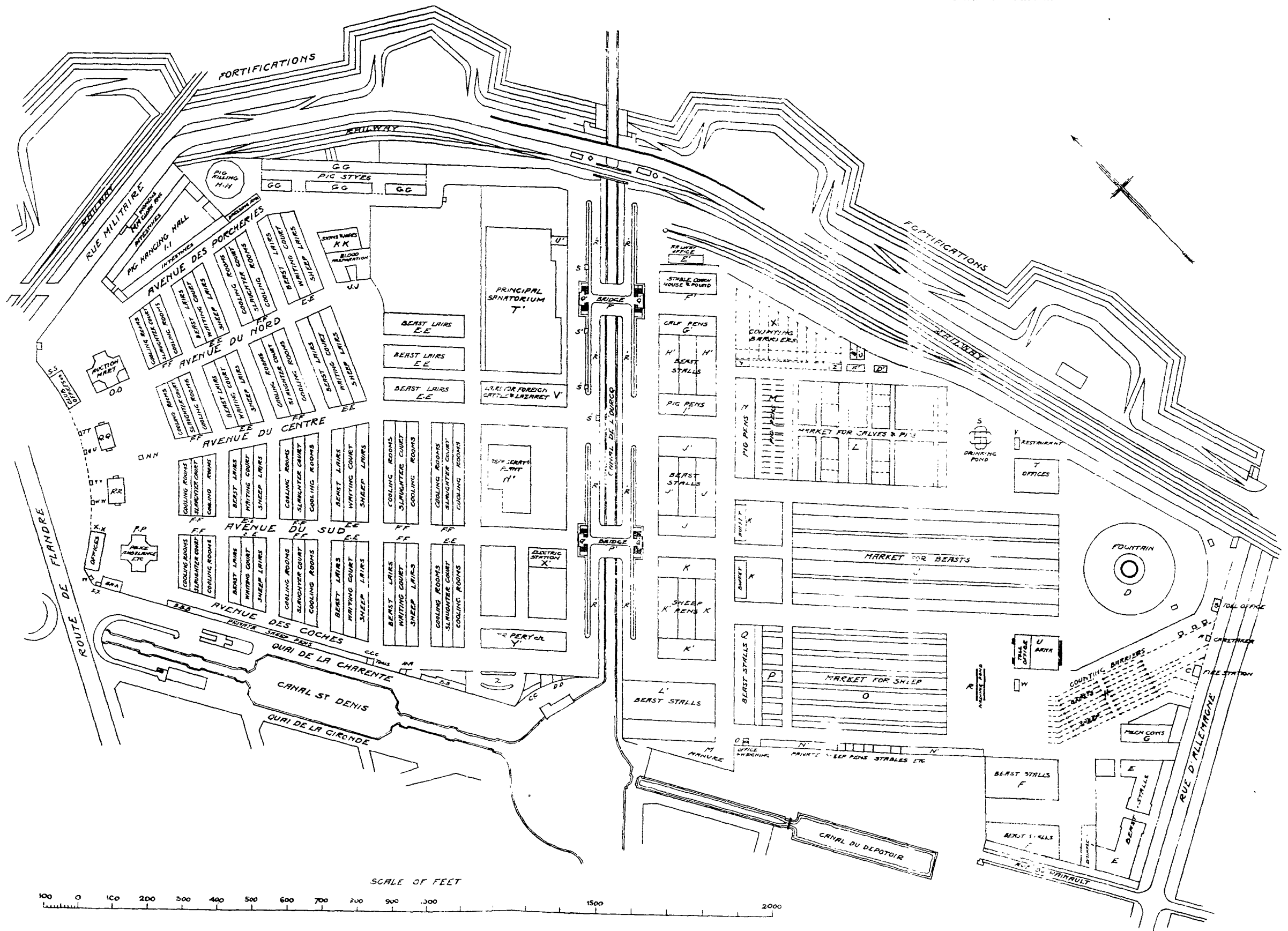


FIG 2.- LA VILLETTE PARIS. BLOCK PLAN.

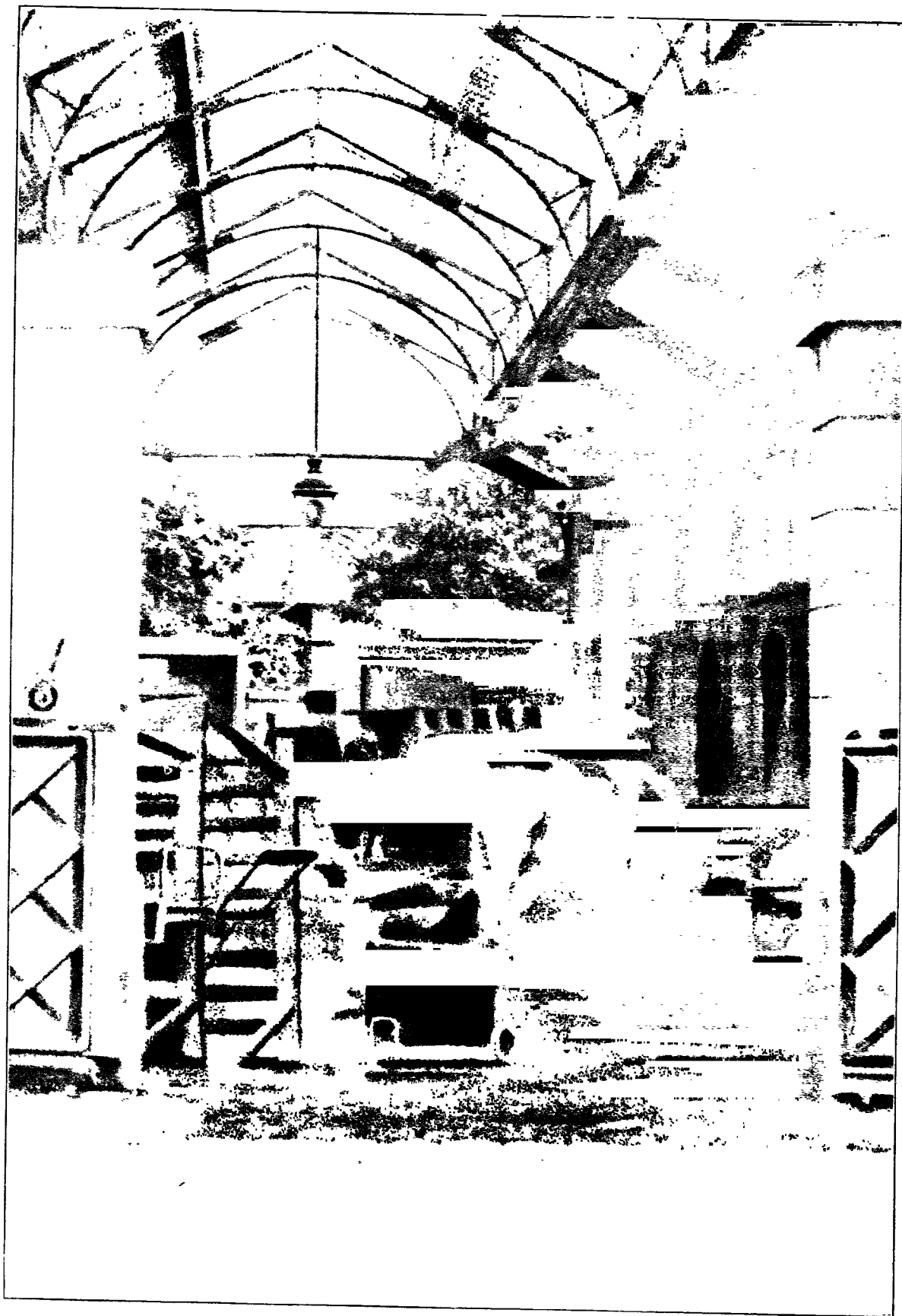
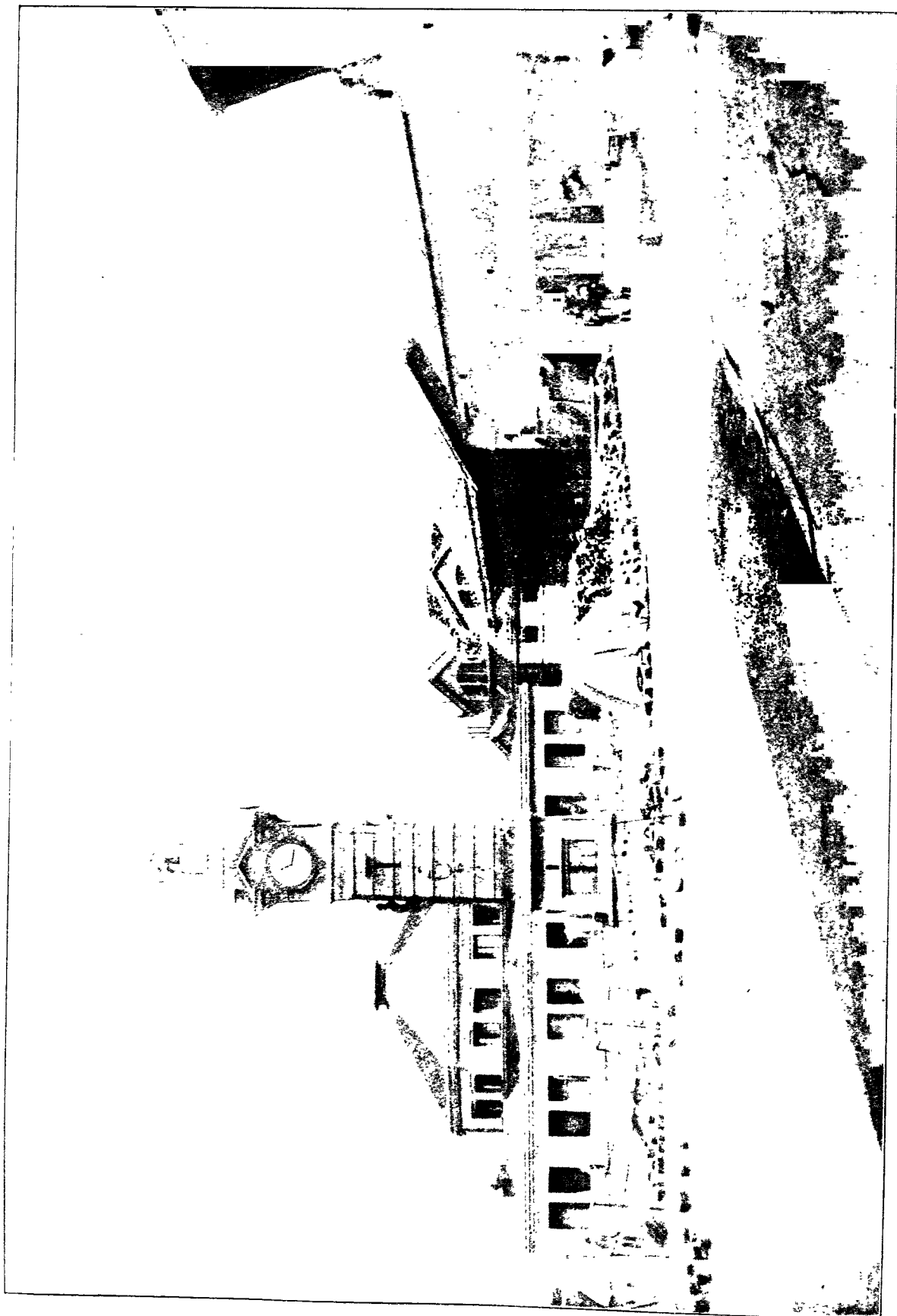


FIG. 3.—LA VILLETTE. ARMS. INTERIOR OF SHALLOTT. 80011



1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

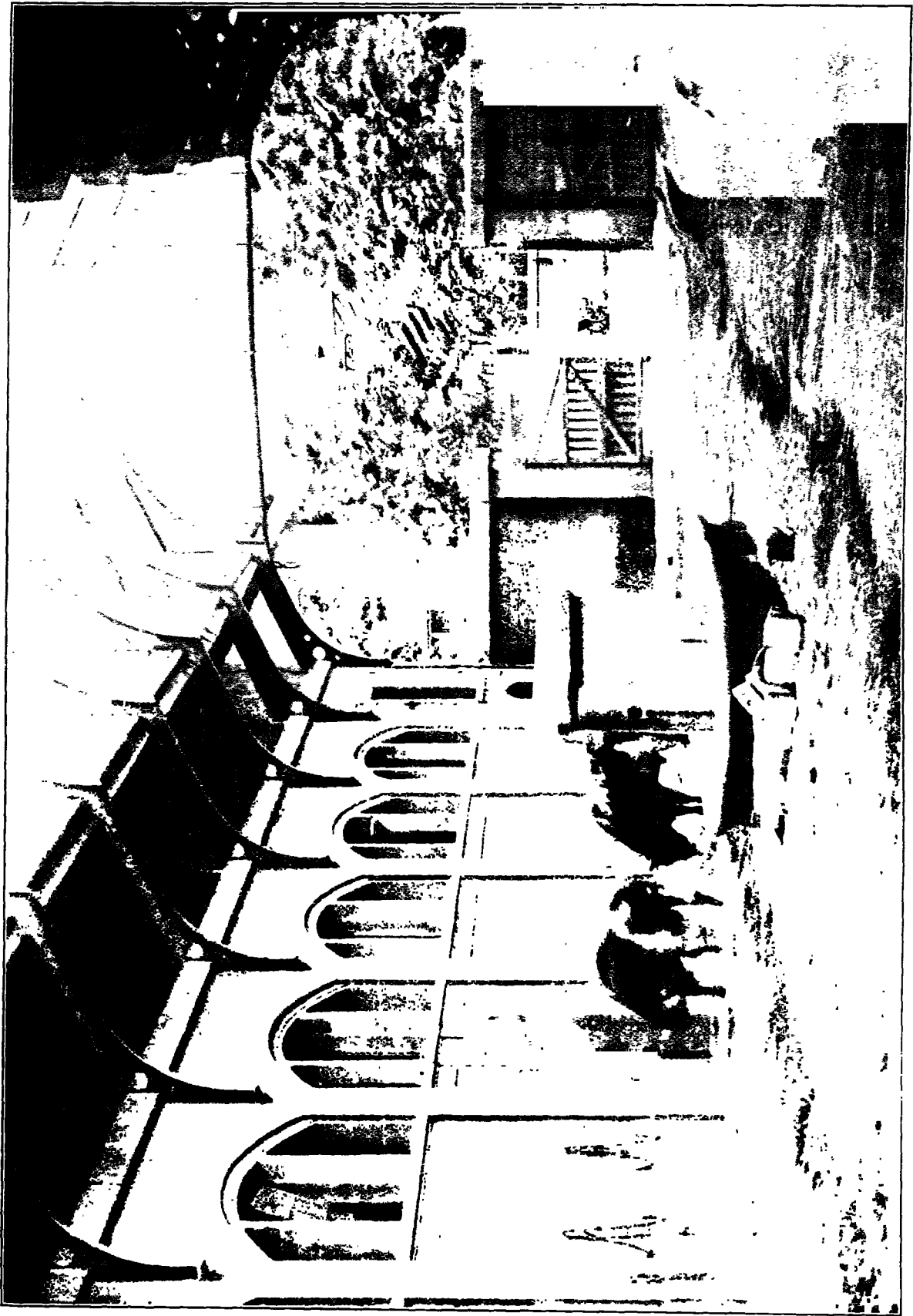
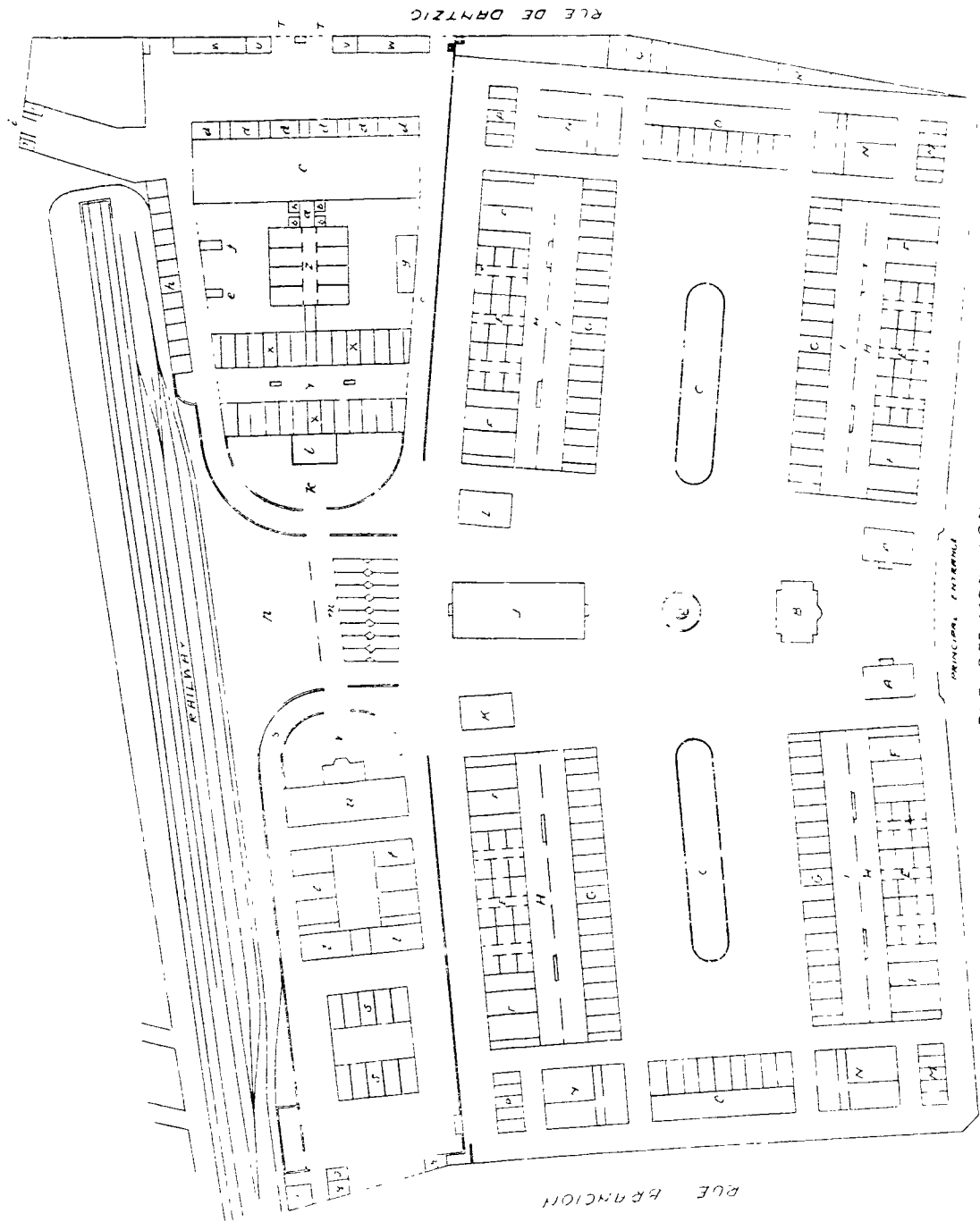


FIG. 5.—LA VILLETTE, PARIS. INTERIOR OF WAITING-COOL ROOM.

[illegible]

RUE DES MORILLONS

$$S_{\text{eff}} = \int d^4x \sqrt{-g} \left[\frac{1}{2} R - \frac{1}{2} (\partial_\mu \phi)^2 - V(\phi) \right] + \int d^4x \sqrt{-g} \mathcal{L}_{\text{matter}}$$

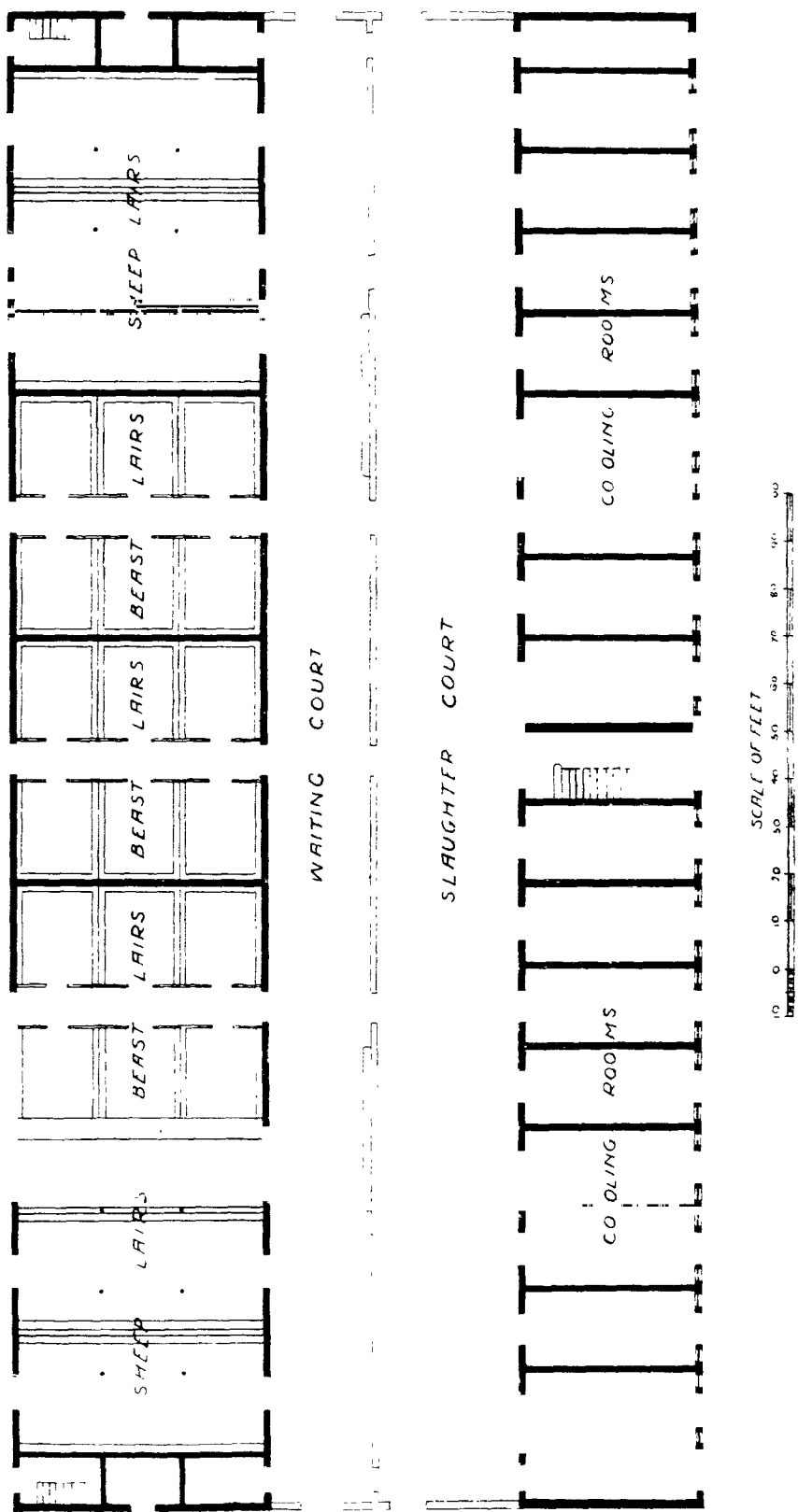


FIG. 2. LAYOUT OF Slaughterhouse, showing the layout of the various rooms and the waiting and cooling rooms.

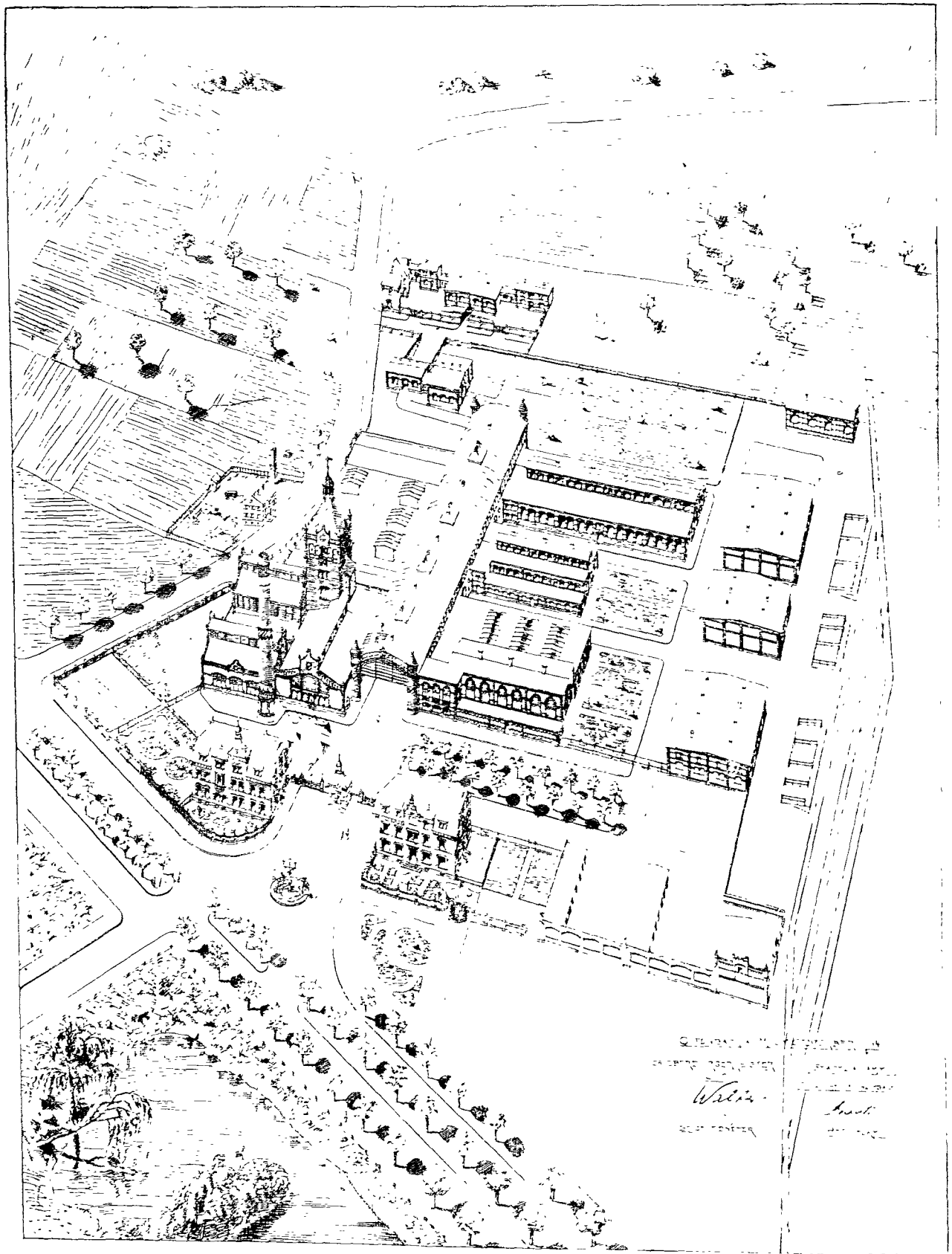


FIG. 5.—ISOMETRIC VIEW OF PUBLIC BUILDINGS AT OFFENBACH-AM-MAIN, GERMANY.

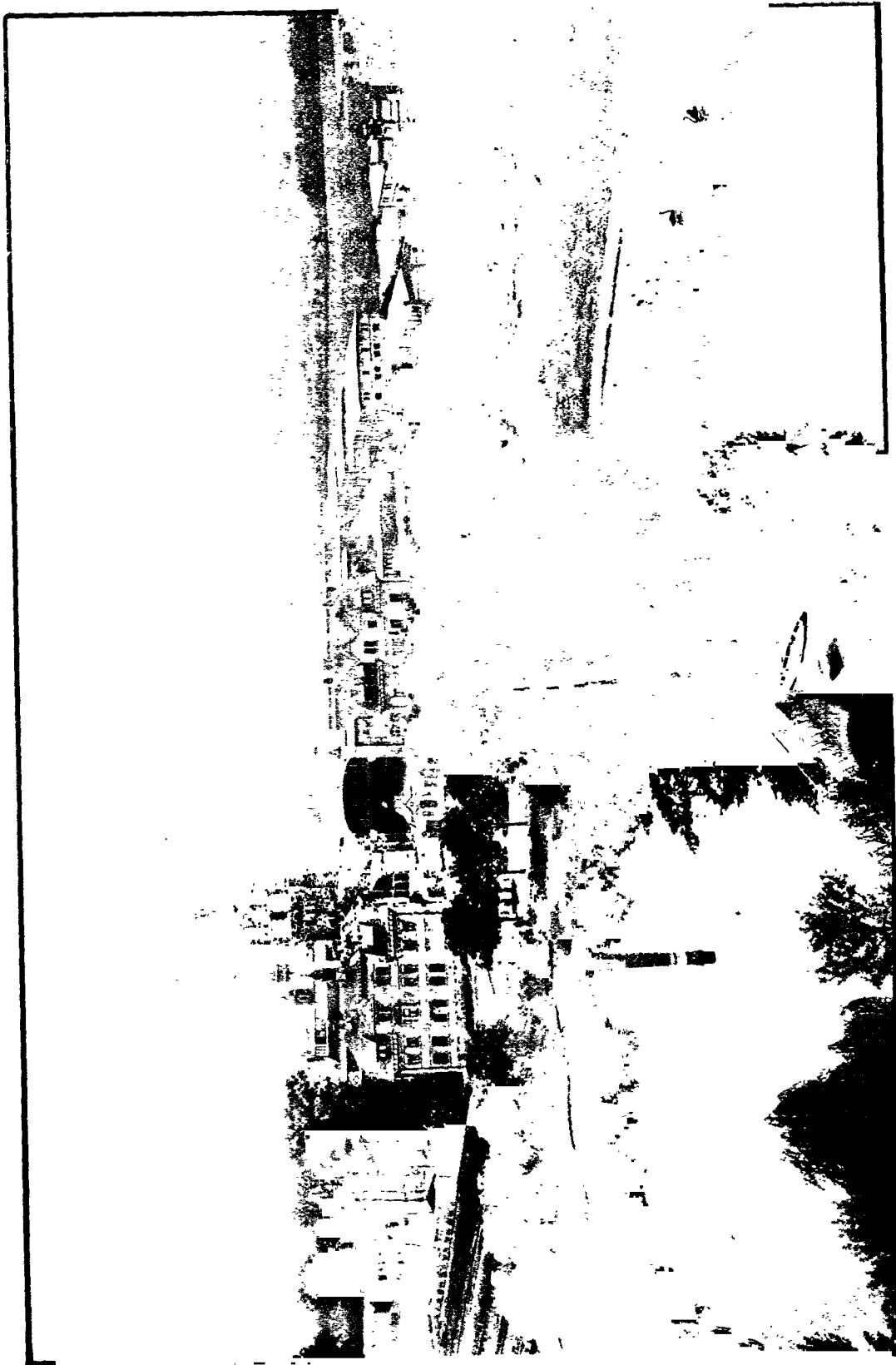


FIG. 10.—GENERAL VIEW OF THE NEW PUBLIC BUILDINGS AT OFFENBACH, GERMANY.

is greatly reduced. Stated hours are devoted to killing, dressing, and cartage, a procedure which I think would be almost impossible in England, and which was thought to be impossible when considering the new scheme at La Villette. As a broad principle, I think the animals should enter the abattoir at one end, be stabled, killed, the carcasses dressed, cooled, and the meat carted away without having to pass through any open roadway.

It may be interesting to note the broad views which our Continental neighbours take in reference to their abattoirs, frequently among the finest buildings in the city. An article in the *Lancet* of 26th December last called attention to the fact that the Birmingham municipal abattoir cost £126,989. While Birmingham spends nearly 5s. a head for its abattoir, the little town of Offenbach, in Germany, for instance, has spent £1 13s. 7d. per head of its 60,000 inhabitants.

The plan and photograph exhibited of the abattoir at Utrecht are most interesting, as they show a well-arranged Dutch installation.

Having thus briefly dealt with a few of the Continental abattoirs, I turn to the very limited field of those in England. Although not strictly a public abattoir, and although the installation is a small one, I think the plan of the abattoir at the Dockyard, Chatham, is the most perfect of those of which I have knowledge, not only from the humanitarian point of view, but as regards facilities for working. This plan is the outcome of many wise counsellors. In 1904 the Admiralty appointed a Commission to inquire into the question of the "humane slaughtering of animals," and the many witnesses examined were all experts engaged in those trades and professions appertaining to the subject. As a result of the deliberations, the main points in the report were as follows: "That animals awaiting slaughter should be spared any contact with the sights or smell of the slaughter-house; that waiting-pens should be separated from the slaughter-chamber by sliding doors; that floors should be impervious and not slippery; that cattle should be slaughtered screened off from their fellows; that immediately the carcasses have been bled they should be dressed in an adjoining chamber, screened off from view of animals entering the slaughter-house." How admirably these recommendations have been carried out and how thoroughly they are practicable will be seen from illustrations on the walls. The animals about to be slaughtered are brought from the lairs and kept waiting in four covered pens, in the centre of which is the superintendent's office, with windows giving full command over the slaughter-hall into which the animals are brought from the pens. On one side of the slaughter-hall are dwarf division walls, about five feet high, extending half-way across the chamber, thus assuring all the advantages of the open hall with none of its disadvantages. In these compartments the animals are stunned and bled, and the floor washed down and cleansed before other animals are brought in. The carcasses are then drawn into the meat-dressing room, where they are "dressed." This chamber is one which, I think, does not exist in any abattoir elsewhere, and it is difficult to over-estimate its many advantages. Here is executed the particularly dirty work; it promotes rapidity of working, obviates the necessity of draughty roads or passages between the slaughter-hall and cooling-room, and facilitates the removal of offal and refuse. A point not to be overlooked is that of easy inspection, as the intestines of each animal killed can be examined in conjunction with the carcase, and it is only under such conditions that really reliable examination can be made. The remaining buildings on the site are practically similar to those found in a well-planned scheme, and call for no special comment. The buildings were designed in the Admiralty Offices under the superintendence of Mr. J. Brooker Hunt.

On the walls are shown plans, elevations, and in some cases photographs, of a number of public abattoirs in England, most of which are interesting as a whole or in part. They show a diversity of plan, and it will be noted that most of the older ones are so arranged that

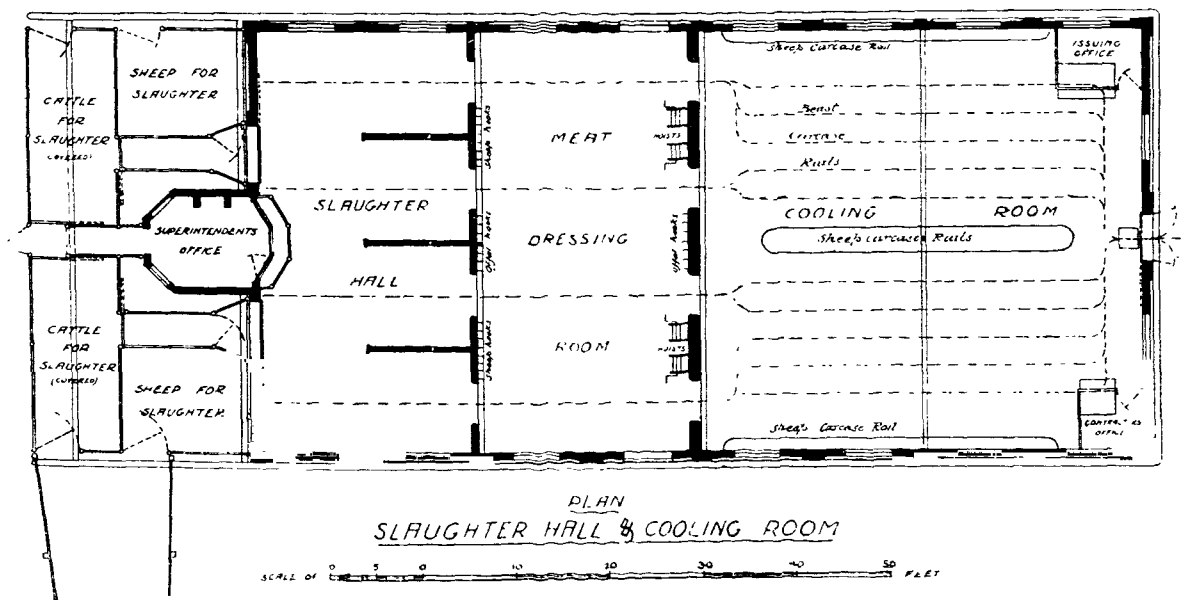
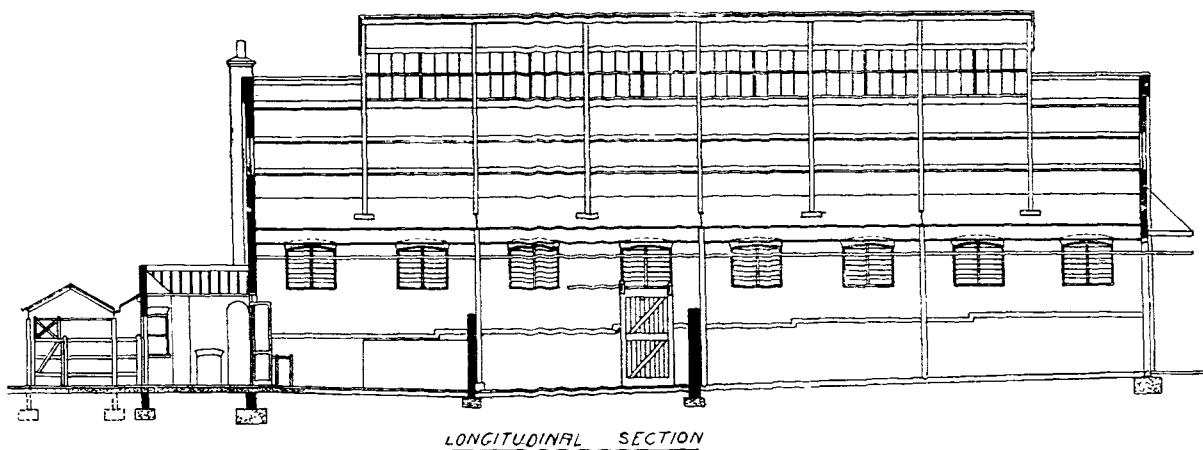
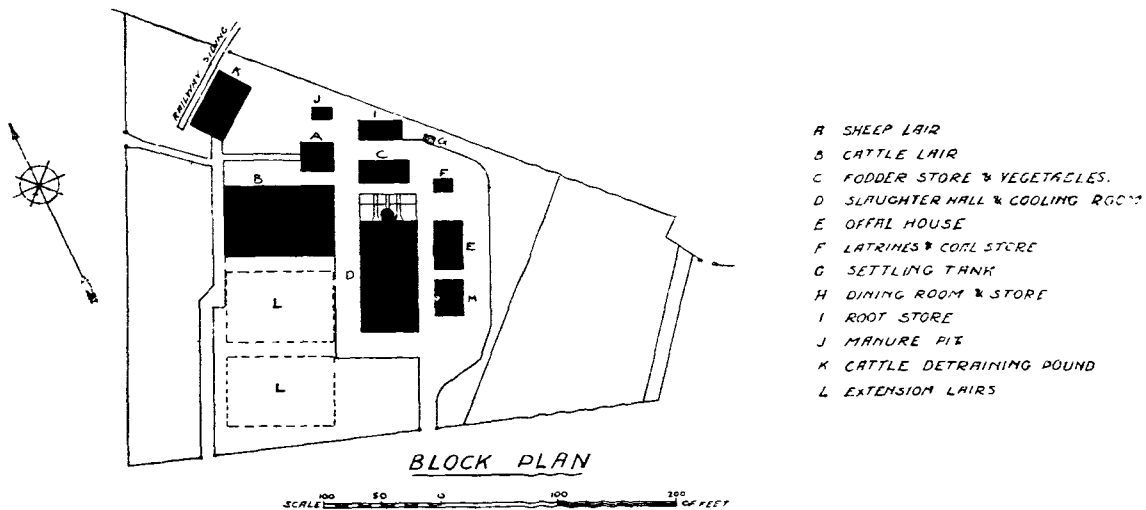
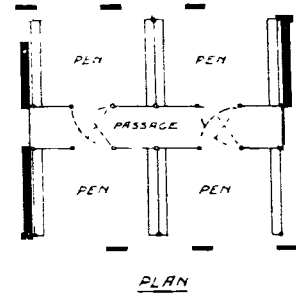
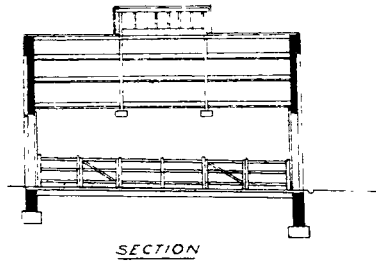
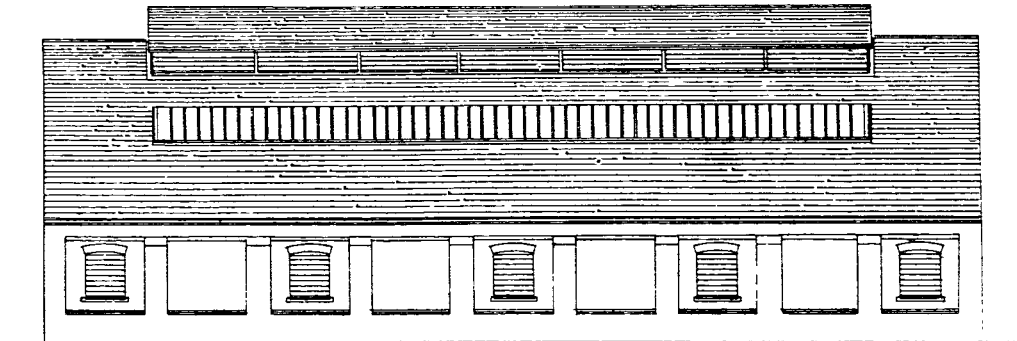


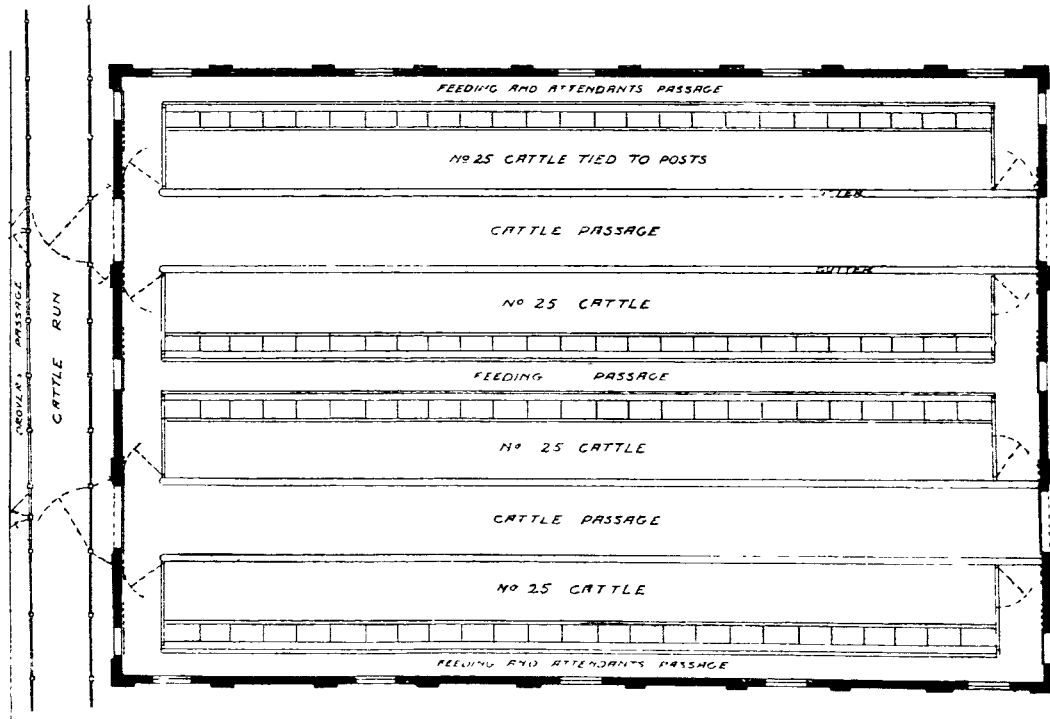
FIG. 17. LAYOUT OF A MEAT SLAGHERY



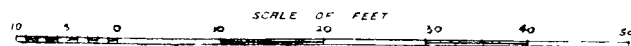
SHEEP LAIR



ELEVATION



PLAN
CATTLE LAIR



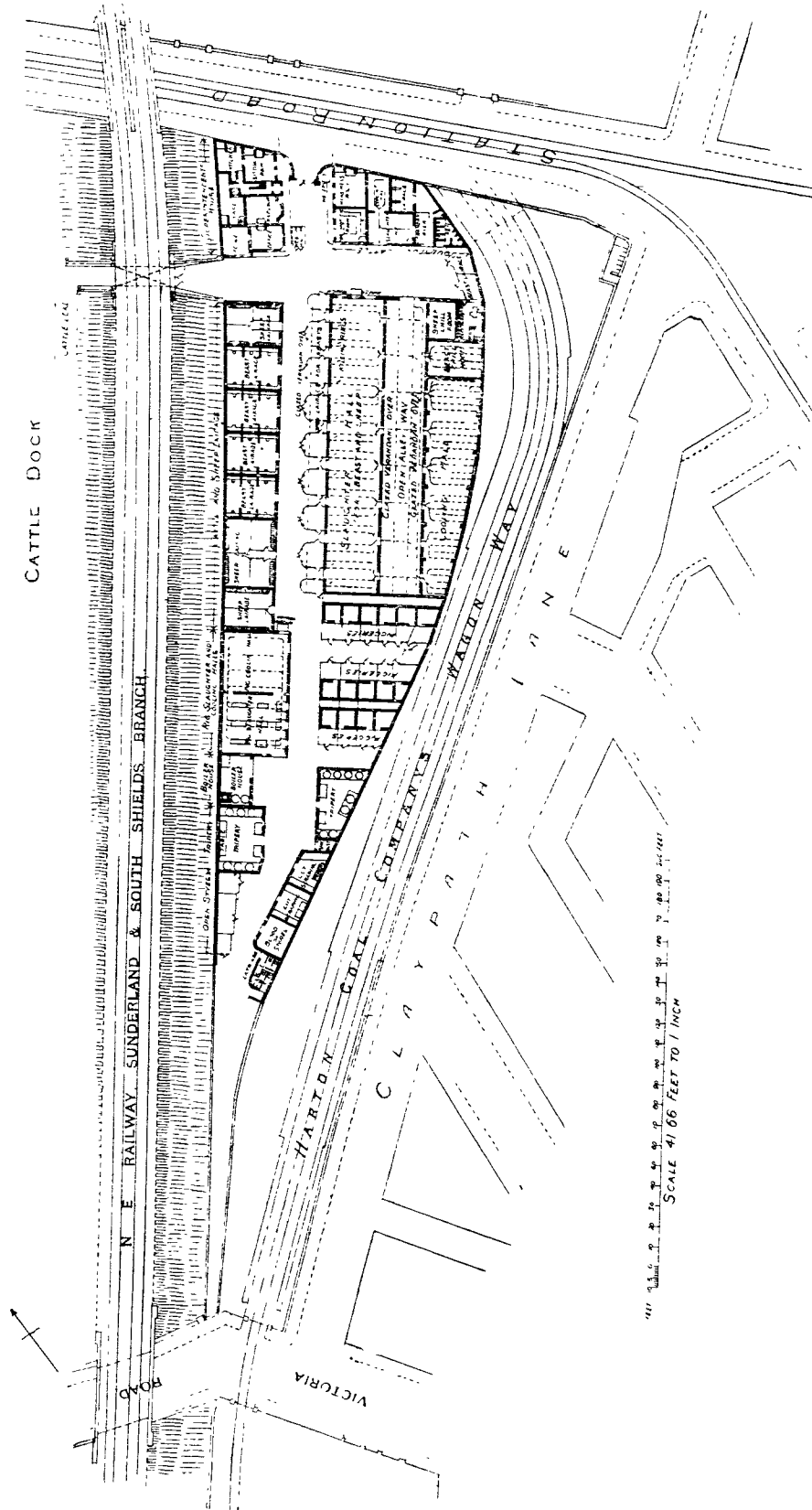


FIG. 13. VICTORIA STATION AT SOUTH SHIELDS. GROUND-FLOOR PLAN.

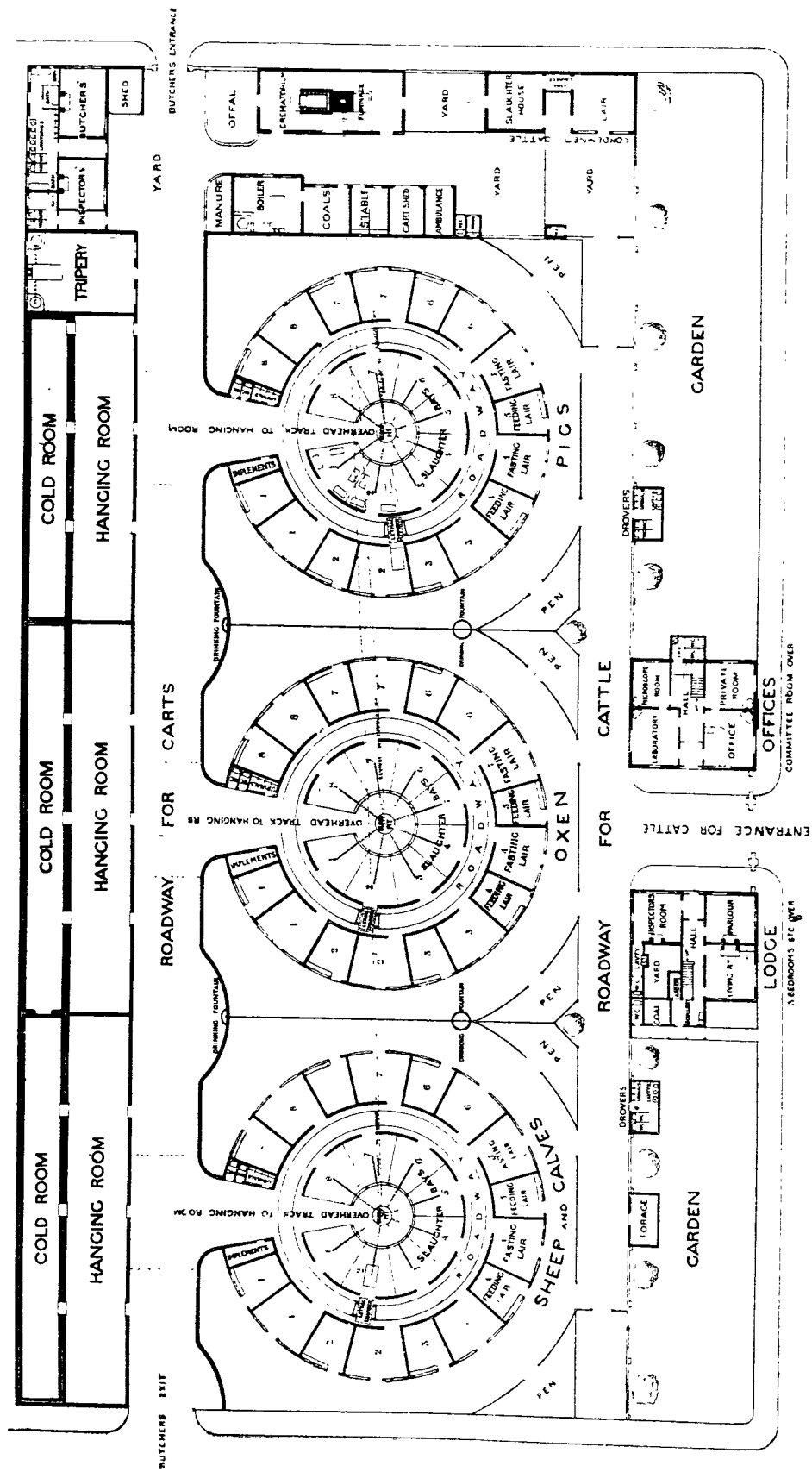
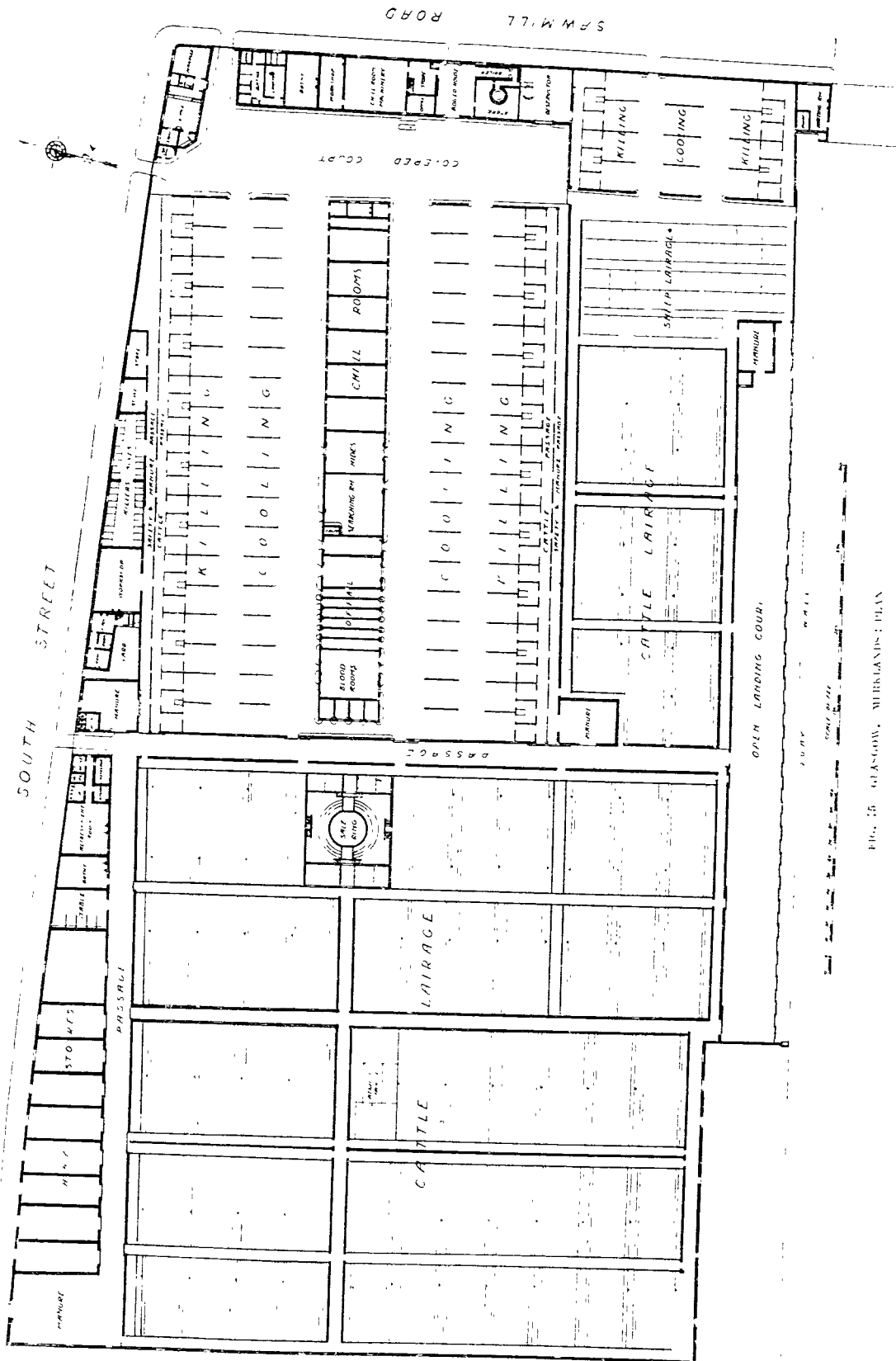


FIG. 11. PLAN OF MODEL LIVESTOCK MARKET



166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984,

each butcher has a separate killing-chamber, which is now generally condemned, whilst the slaughtering arrangements of the more modern buildings—such as that at South Shields—are on the “open-hall” system.

I am sorry that it will be impossible to discuss these plans separately, but I should like to draw attention to a few of them. The buildings at South Shields, opened in 1906, are those of one of the last public abattoirs erected in England. The site is irregular in shape, but well-situated: and although the scheme is a small one, it is very complete and embraces the good points found in the modern Continental abattoir for a town of medium size. The slaughter-hall is separated from the cooling-room by a roadway partly covered by glass verandahs over which the carcasses are conveyed on overhead rails. I think, however, that it is better to convey the freshly killed carcasses directly from the slaughter-hall to the cooling-rooms on overhead rails without necessitating passage through an open (or partly open) roadway impregnated with dust.

A unique plan was suggested by the Model Abattoir Society some years ago, and the plan is shown in fig. 14. The scheme was formulated by Mr. Bertram Richardson in conjunction with his father, the late Sir Benjamin Ward Richardson, and drawn by our colleagues, Messrs. Unsworth and Newberry. You will readily observe that the plan is not to scale, as the pavilions for pigs, sheep, and beasts are of similar size. It is, however, interesting and suggestive.

The idea that every animal should be rendered insensible by being placed in a lethal chamber before killing naturally appeals very strongly to our humane instincts, and it has been proved by experiment that the flesh of the animal after such treatment is in no way deteriorated. The three main buildings are circular, and consist of an outer range of lairs, whilst a roadway separates these from the slaughter-bays. The roadway is laid with tram lines, on which a lethal chamber is arranged. Thus the animals would enter this chamber from the lairs, be rendered unconscious, and then taken into one of the slaughter-bays, killed, and the carcasses dressed. Another feature of this plan is the admirable facility for inspection, as the veterinary inspector, standing in the centre enclosure, has full command over the whole of the slaughtering operations. The late Sir Benjamin Ward Richardson experimented on a large number of animals in a West-end slaughter-house, and it was found that not only was lethalising perfectly practicable, but that the animals suffered no pain, the flesh was not injured, and was afterwards sold in the usual way of trade. Whether, however, such arrangements could be made practicable for a large abattoir is, I think, somewhat debatable.

In the foregoing remarks I have not mentioned the abattoirs of Scotland. To-day, out of 205 burghs, 124 of them, or nearly 61 per cent., have public abattoirs and greatly added powers for closing the private slaughter-houses. The Local Government Board of Scotland is now very rightly advocating the erection of public abattoirs in or near all towns. A radius of five miles is suggested for towns with from 6,000 to 8,000 inhabitants. Scotland is certainly much in advance of England, and is gradually approaching an “abattoir system.”

As regards materials, in the erection of these buildings wood should be used only where absolutely necessary. Stability and facilities for scrupulous cleanliness must be the keynote. The floors must be of perfectly impervious material, and white glazed brickwork or tiles largely used in the interior of the buildings, so that every trace of dirt or blood may be easily detected and removed. A writer recently in one of the journals advocated the use of brown salt-glazed bricks for the dado of the killing-courts, as traces of blood on this material would not be apparent. It is difficult to understand the reason of such a recommendation, although it has been adopted in one of the last abattoirs erected. Brickwork, cemented and distempered at frequent intervals, would be infinitely better if the initial cost of glaze or tile-work—or marble, as some-

times used in Germany—is prohibitive. Throughout the buildings very light paint—preferably white—should be employed.

The question whether public abattoirs should or should not be adopted appears to me a national rather than a political one, so that I am somewhat unwilling to mention such a vexed question as “imports.” But last year we imported into the United Kingdom considerably over £50,000,000 worth of meat food. A very large proportion of this comes into the country and is sold by the retailer practically without inspection. The live animals imported and killed at Deptford and other foreign animal wharves are certainly under veterinary inspection, but they only represent one-fifth of our foreign and colonial meat-supply. A large portion even of this meat is sold as “home-killed,” which to the average purchaser conveys the idea that it is English. I am strongly of opinion that a general “abattoir system” would encourage the British farmer to raise home-grown cattle, which would not only be to his pecuniary advantage, but also benefit the British consumer.

In conclusion, I should like to say a few words on the main reasons why public abattoirs have not superseded private slaughter-houses in this country. They may be summed up in four words, “trade opposition” and “vested interests.” Trade opposition is very strongly against the abattoir system, as under it inspection of meat would naturally be more stringent than is possible at the present time, so that diseased meat food would be condemned in a much greater proportion.

It is acknowledged that even the greatest expert is frequently unable to detect tuberculosis in an animal whilst it is standing in the cattle market, so that a butcher may buy an animal in good faith and after killing find the carcass is either partially or wholly unfit for human consumption. The question as to whether he should be compensated under these conditions was discussed at great length by the Royal Commission on Tuberculosis. Four of the Commissioners considered the matter “a trade risk,” whilst the other three recommended compensation to the extent of one-half of its value, provided that the animal had been bought without any intent to defraud, and that a reasonable price had been paid for it.

As regards compensation for compulsorily closing private slaughter-houses when a public abattoir is built, the Commissioners were unanimous in the recommendation that no compensation should be paid, but that the owners should be allowed three years to convert and apply their premises to other purposes. Personally I am in favour of reasonable compensation in either case. I find in *Our Slaughter-house System*, by Messrs. Cash and Heiss, that when the closing of private slaughter-houses in Germany was made compulsory the sum of £85,000 was claimed from twenty-two towns. Government arbitrators were appointed and only £11,360 paid, an average of £493 per town, or 13 per cent. of the amount claimed.

There is little doubt that many butchers holding licences only continue to do so waiting for the time when the buildings will be closed and compensation given. This is proved by the fact that at the last licensing meeting of the L.C.C. a number of licences were opposed, and some refused, on the ground that practically no slaughtering had taken place during the year. Why the cattle breeders and farmers oppose public abattoirs is a little more difficult to understand.

Some few years ago it was proposed by the L.C.C. to erect six large abattoirs around London, and had this scheme been carried out one of the greatest hygienic reforms of the century would have been accomplished. But once again trade opposition succeeded, and the proposed work was abandoned. A few months ago the subject was again brought forward, with the same unfortunate result. How long a public necessity is to be shelved owing to the well-organised opposition of a few interested persons, it is difficult to say.

To the Humanitarian League credit must be given for its strenuous endeavours to

promote the abattoir system. Many pamphlets have been published by the League on the subject, but these only reach a limited number of persons interested in the matter. Powerful trade opposition and public apathy have still to be overcome. The R.S.P.C.A. have recently circulated a very interesting pamphlet, giving facts and figures, entitled a *Plan for Public Abattoirs*.

More than once we have discussed in this room the question of "official architecture." Abattoir buildings complying with various requirements, complex engineering work, elaborate sanitary work, considerations of humanity in stabling and slaughtering, the most efficient methods of veterinary inspection, &c., all tend to render them practically impossible to be designed by a single individual, however talented. In any large abattoir scheme the architect, engineers (constructional and municipal), medical officer of health, and veterinary surgeon should work together harmoniously.

Whether in England we shall awaken from our inertia during the next year, or the next century, is a matter I must leave in the "lap of the gods."

List of Illustrations exhibited at the Meeting.

Map of England, showing situation of Public Abattoirs with and without Cattle Markets attached.	South Shields: Plan, View of Slaughter-hall and Cooling-hall.
Map showing the existing private slaughter-houses licensed by the London County Council in the area covered by the Map published in the London Directory.	Carlisle: Plan of Abattoirs.
La Villette, Paris: General Plan: Plan, Elevation, and Section of Slaughter-count and Cooling-rooms, and plan of Lairs and Waiting-count: Detail of Lairs, Waiting-count, Drinking-trough, and division of Sheep Lairs. Part Plan, Elevation, and Section of Beast Market: Exterior and Interior. Photographs of various Buildings; a Plan for the proposed reconstruction of the northern portion of the Abattoir at La Villette. Bird's-eye View of ditto.	West Hartlepool: Block Plan and Plan.
La Rive Gauche (Vaughan): Block Plan of the Abattoir: Detail Plan of Lairs, Waiting-count, Slaughter-count, and Cooling-rooms. Interior and Exterior Views of various Buildings.	Barrow-in-Furness: Block Plan and Detail Plans.
H.M. Dockyard, Chatham: Block Plan, Plans, Elevation, and Section.	Birkenhead: Plan.
	Cheltenham: Plan and Elevation.
	St. Anne-on-Sea: Block Plan and Detail Plans.
	St. Helens, Lancashire: Plan.
	Birmingham: Plan.
	Leeds: Plans and Elevations.
	Huddersfield: Plan.
	Glasgow, Merchants: Plan.
	Dundee: Original Scheme: Plan, Bird's-eye View.
	Model Abattoir Society: Sketch Plan.
	Dublin: Plan.
	Berlin: Plan.
	Offenbach: Plan, Bird's-eye View, and General View.
	Buda Pesth: Bird's-eye View and General View.
	Utrecht: Plan.
	Leipzig: Plans and Views.

Most of the illustrations on foregoing pages are reproduced, by kind permission of Messrs. L. & F. N. Spott from Mr. Axling's recently published book on *Public Abattoirs*. The photographic views of La Villette, Paris, are printed from blocks used in the production of Mr. Axling's book, and have been kindly lent by the publishers for the present purpose.

DISCUSSION.

MR. ERNEST GEORGE, *President*, in the Chair.

MR. SYDNEY PERKS, F.S.A., the City Surveyor, rising at the invitation of the President, said the remarks he wished to make would be in the nature of a protest. Mr. Ayling had carefully considered many plans, but he (Mr. Perks) had looked at the names of the different engineers and architects on the plans exhibited, but had failed to find on any one of them the name of the author of the Paper. Even if Mr. Ayling had never carried out an abattoir, which apparently he never had done, he might at least have drawn up some model plan of his own to be a guide to those who had to design such buildings. What he particularly wished to protest against, however, was the statement in the Paper that "in London alone to-day we have about 294 private slaughter-houses and not a single municipal one." Mr. Ayling also stated: "Recently plans have been prepared for a public abattoir in Constantinople, and work either has been or shortly will be commenced. When this has been accomplished, London will stand in splendid isolation by being the only European capital without such an institution." If Mr. Ayling meant by "municipal" that not a single slaughter-house had recently been put up at the expense of the rates he was perfectly right. They had, however, a great improvement upon that: for a large abattoir had been erected for the public good without a penny coming out of the public pocket. The Corporation of London was the food authority for London; it had the principal markets, and it boarded all ships coming up the Thames and inspected the food. The Corporation of London had spent between £30,000 and £40,000 on putting up public slaughter-houses at Islington. Those slaughter-houses had been contemplated for some years, and a committee had visited the best slaughter-houses in Germany and the principal slaughter-houses in England, and as the result of many years' thought the abattoirs at Islington had been built and were opened by the Lord Mayor in state a little over a year ago. Those slaughter-houses were public, but the inference seemed to be, from Mr. Ayling's Paper, that they were not public. Anyone could go there and kill a pig for sixpence, a bullock for eightpence, a calf for threepence, or a sheep for twopence, and there was in attendance a fully qualified veterinary surgeon, with a staff of assistants, to see that it was properly done. Humanitarian and sanitary improvements would be found there that did not exist in any other abattoir in England and in very few abroad. One large municipal authority recently had appointed a committee to visit the principal slaughter-

houses on the Continent. On their return they visited those put up by the Corporation at Islington, and they declared it to be far finer, as regards equipment, and more satisfactory than anything they had seen on the Continent. At Islington no money had been spared in order to get the most perfect sanitary and humanitarian appliances, but not a penny had been spent on architectural work. The instructions were that the building was to be of stock brick, and there was no ornament of any kind about the buildings. The monotony of the long range of buildings was not, however, without a certain charm. Inside it would be found that no regard had been paid to cost or to recoupment. The Corporation did not care whether the buildings paid or not: they were erected to be the finest slaughter-house that could be put up from the humanitarian point of view. For instance, over £2,000 had been spent on electrical hoists for raising the beasts after they had been killed, and about £1,000 had been spent on what was known as the Podewil destructor, a wonderful German invention which enabled them to get rid of all diseased meat. He (Mr. Perks) had devoted considerable study to the subject, but he did not wish to criticise the Paper. He was interested in the Corporation of London, and he felt he ought to make some protest, so that it should not go forth that London was doing nothing: this, he was sure, the Institute would regret. There were a lot of practical points in connection with the subject which he should like to go into at another time.

MR. J. C. NICOL, [A.] said that some ten years ago he had had the opportunity of visiting most of the slaughter-houses on the Continent for one of the important corporations which had been mentioned that evening, and he must say that he quite agreed with some of the remarks made by the last speaker. The lecturer had put together a large amount of information which was very difficult to obtain, but he was rather disappointed that he did not refer more to what had been done in the Provinces. London, no doubt, had done at Islington very good work, but not until after the Provinces had shown them what might be done in a similar way. In a slaughter-house design it seemed advisable not to follow the French system, where they had the opportunity of laying their ground-plan out almost to any extent. Most of the abattoirs on the Continent seemed to be on the same plan. The buildings at La Villette had been very much improved, but the plan there adopted would not apply either to London or to the provincial towns in England, for the simple reason that they

had not the land in the centre of the cities to devote to this purpose. The Birmingham Corporation erected a large-sized slaughter-house upon rather a restricted area of ground; it was necessary to economise the land, and the expedient was adopted of putting the stables on the top of the slaughter-house. The stables were approached by an inclined plane, and the arrangement was found to work very well indeed. He thought the lecturer had made too much of the sentiment of slaughtering. He had never seen any indication of fear or suffering in the eye of an animal when looking at another of its kind being killed. There were always busybodies about slaughter houses who wanted to put blue spectacles upon the animals and leather covers &c. over the eyes and head: but these only served to distract the slaughter-man in the execution of his important work. In the hands of a good sober slaughter-man the pole-axe had been found to be the most effective weapon. In the Provinces some of the abattoirs were very paying institutions when combined with markets. There was a general desire there to have the public slaughter-house close to the market-place. The simplest method was to bring the animals direct to the slaughter-house either from the side stables or from those above, without an intermediate pen; one animal could be brought down at a time, and while being killed in a properly enclosed slaughter-house the next animal could be got in readiness. He thought that in England it was best for climatic reasons always to have abattoirs and markets under a continuous roof, including the carting ways. A most important thing was the designing of the fittings for the slaughter-house. The carrying gear was far more important even than the architecture of the building itself. Walls and shed roofs gave some opportunity for an architect to display his skill; but the designing of the fittings, the carrying gear from the slaughter-house to the market, the hoisting of the carcasses and taking them to the chill-rooms and refrigerating-rooms, required skill to avoid handling the carcasses. Germany had been well to the front in this matter, and reference might be made to the work of the firm of Messrs. Herbert Morris & Bastert, who introduced the carrying gear into this country. It was from this firm that he got the detailed information which was obtainable in Germany ten or twelve years ago, when such arrangements were not to be seen in England. This matter of public abattoirs was a subject which he hoped would be brought before the general public and the municipalities throughout England. The effort the lecturer had made to bring this about was a step in the right direction, and such practical Papers as his ought to receive encouragement. The planning of the most simple building required skill and attention, and he thought the courage the lecturer had displayed in coming forward with this Paper on a subject which was not a very savoury one was much to be commended.

MR. J. NIXON HORSFIELD [A.] in moving a vote of thanks to Mr. Ayling for the trouble he had taken in preparing the Paper and putting it before them, said that the subject appealed to him simply as an outsider who had been to Chicago, had visited the stock-yards there, and had regretted having done so. Therefore he could sympathise with the movement for handling in a clean and wholesome manner the necessary work of the stock-yard. There was nothing in the subject particularly attractive to them as architects, but they ought not to disdain to do what they could architecturally to express the effort to clean up the stock-yards. If slaughter-houses were abolished and stock-yards and abattoirs instituted as on the Continent, architects might hope to be allowed to help in making them worthy of modern civilisation. If they did so they should, he hoped, be able to avoid the criticism which was made so famous in *The Architect*.

THE PRESIDENT said he thanked Mr. Ayling very heartily for his admirable Paper. The remarks of subsequent speakers had been very interesting, especially those of Mr. Perks, who had given a thoroughly English example of a building made sumptuous inside, but with all attempts at architecture abstained from outside. He was afraid that would generally be the method with us.

MR. AYLING, in responding to the vote of thanks, said that Mr. Perks had remarked upon not seeing his name as architect on any of the plans exhibited on the walls. That was his misfortune, not his fault. He hoped, however, if he lived long enough, to be commissioned to design an abattoir, but it would not be on the lines of that at Islington. Mr. Perks had rated him for not calling the Islington building a public abattoir. But it was not. It was built by the City Corporation; the money did not come out of the rates. The buildings had cost £32,000, they were very small and could never be made to pay. This fact was frankly acknowledged at the opening ceremony. In the Islington buildings there were electrical hoists, and in addition, in case the electrical hoists should go wrong, there were hand-hoists. Slaughter-men, however, were not weaklings, and he maintained that two sets of hoists were not necessary. He quite agreed with Mr. Perks that there was nothing wasted outside, but he did think there was a lot wasted inside, and that many important points of planning were open to criticism. Mr. Nicol had mentioned that they had not room in the centre of London to build on such broad and comprehensive lines as at La Villette. He perfectly agreed. His contention was that they should not build in the centre of London, but in the suburbs, where there was plenty of room. As regards the pole-axe, in the hands of a very expert slaughterer there were few better implements, but many slaughterers were not expert. As to the various forms of pistols and the last implement brought out by the Society for the Pro-

vention of Cruelty to Animals, there was no question about it—it was direct and painless. He had not mentioned particularly the provincial abattoirs because he had not time; but the map he had prepared showed rather an interesting fact, that if a line were drawn from the Wash down to the south of Wales he believed that about one tenth of the existing abattoirs in the Provinces would be found below that line—which was practically the half of England—and about nine tenths above.

Public Abattoirs: Architectural Considerations.

11 Latch Colebrook Street, Westminster
20th January 1903.

To the Editor JOURNAL R.I.B.A.,—

SIR.—I listened to Mr. Ayling's Paper on public abattoirs with much interest, and it had been my intention to raise certain points conflicting somewhat with his general conclusions; but under the circumstances I felt that any further criticism at the moment, however impersonal, might appear ungracious.

Mr. Ayling made out a very good case for the establishment of public abattoirs in the general interest of public health and the humane treatment of animals, but not in the interest of those unfortunate beings who are doomed by the force of circumstances to live and work in them. I suggest that the creation of large buildings on the lines proposed, and the necessary concentration of workers, tends to aggravate the evil of their abnormal environment, and that the public gain is partly at the workers' expense. Civilisation may demand its victims—its martyrs—but let us show at least as much humanity to men as to animals. It seems to me that the arrangement of an abattoir should show at least as much consideration for the actual feelings of the human workers as for the somewhat problematic feelings of the animals, and that it is only a plan that is dominated by this consideration that has sufficient human interest to have any claim to be considered architecture. I should have liked to ask Mr. Ayling whether it was possible so to design an abattoir as to permit the lives of the workers to approach the normal, and it is because I doubt this that I also doubt the propriety of considering an abattoir as architecture.

There are certain facts of life which we recognise as facts, but which we all refuse to recognise as fit subjects for art. I suggest that this is one of them. Take it how you will, the deliberate, cold-blooded slaughter of tame animals is not an inspiring theme: it bears the same relation to the pursuit of wild animals as cold-blooded murder does to battle. Imagine a picture or a statue of a butcher killing a pig! Imagine a symphony of slaughter or a sonnet to a slaughter-house! Is it easier to imagine the possibility of making an expressive work of art of such a building? The more the nature and function of the building is expressed outwardly—the more this expression is heightened and intensified—the more horrible the result.

Granted that such buildings must be, and that in their technical aspect they may come within the province of the architect, yet, I submit, they are not fit subjects for deliberate artistic expression; although it is possible that by refraining from any conscious expression of the nature of the building, by doing nothing to draw out or heighten this expression, we may arrive at a certain negative expression—the expression of the fact that the subject is unfit for publication. From this point of view it might be well to hide them underground like a public convenience, but if this is not practicable, they might be surrounded by a high blank wall; then if we were to write over the gateway, in the language of the animals, "Abandon hope all ye that enter here." I fancy we should exhaust the possibilities of artistic expression.

The subject is a new one to me, and this may account for the difficulty I feel; but I would venture to suggest that it is just on this point that we might have expected some help or suggestion from Mr. Ayling, as it is the aspect of the case that has the most interest to the architect. And perhaps I might also be allowed to express the regret that many of us feel that it has become the custom at the Institute for members who read Papers on any special class of building to confine themselves to the technicalities of requirements and arrangements, and to ignore the larger and more interesting question of the special opportunities that each different class of building affords for characteristic architectural expression.—Faithfully yours,

A. R. JEMMETT [F.],



9 CONDUIT STREET, LONDON, W., 23rd JAN. 1909.

CHRONICLE.

THE PRIZES AND STUDENTSHIPS 1909.

The Council's Award.

The Designs and Drawings submitted for the Institute Prizes and Studentships are now on exhibition in the Gallery of the Alpine Club, entrance in Mill Street, Conduit Street, W. The Council's Deed of Award, read at the General Meeting of the 18th January, gives particulars of the competitions and the results thereof as follows:—

THE ROYAL INSTITUTE SILVER MEDALS.

(i.) *The Essay Medal and Twenty-five Guineas.*

Nine Essays on "The Influence on Architecture of Modern Methods of Construction" were received for the Silver Medal under the following mottoes:—

1. "Forms."
2. "In Recto Decus."
3. "Modus Operandi."
4. "New Lamps for Old."
5. "Stairs."
6. "The Man of the Crowd."
7. "Vita Nuova."
8. "Void."
9. "X. Y. Z."

The Council have awarded the Medal and Twenty-five Guineas to the author of the Essay submitted under the motto "Void" [*Henry A. Hill, B.A.*], a Prize of Ten Guineas to the author of the Essay submitted under the motto "Vita Nuova" [*Horace Cubitt, A.C.*], and a Certificate of Hon. Mention to the author of the Essay submitted under the motto "New Lamps for Old" [*J. MacLaren Ross, A.S.*].

(ii.) *The Measured Drawings Medal and £10 10s.*

Nine sets of Drawings were sent in of the various buildings indicated, and under mottoes as follows:—

1. "Antiquas Debitum Veneratio" (6 strainers (Royal Infirmary, Glasgow).
2. "Cistercian" (6 strainers (Fountains Abbey).
3. "Erethnum" (5 strainers (St. Pancras Church).

4. "Essa Quam Vale" (5 strainers (Hamman's College, Cambridge).
5. "Flint" (5 strainers (St. Dunstons Parish, Canon).
6. "Metamorphosis" (6 strainers (Royal Naval College, Greenwich).
7. "Persistet" (6 strainers (Hon. H. Herbert Fraser).
8. "San Gallo" (6 strainers (Church of the Mabey).
9. "San Rocco" (6 strainers (St. Rocco).
10. "San Rocco" (6 strainers (St. Rocco).

The Council award the Medal and Ten Guineas to the author of the drawings submitted under the motto "San Gallo" [*Edw. St. H. Webb*], and a Certificate of Hon. Mention and books to the value of Five Pounds to the author of the drawings submitted under the motto "Flint" [*Edw. St. H. Webb*].

THE TRAVELLING STUDENTSHIPS.

(i.) *The St. John's Medal and £100.*

Ten designs for a Casino on the Borders of a Lake were submitted under the following mottoes:—

1. "Centrelines" (5 strainers).
2. "Che Seta Seta" (5 strainers).
3. "Concentric" (5 strainers).
4. "Gee Ess Aye" (5 strainers).
5. "Nisch" (6 strainers).
6. "Noton Ventre Noton Wale" (5 strainers).
7. "Pier" (5 strainers).
8. "Red Seal" (6 strainers).
9. "Rush" (6 strainers).
10. "Two and One" (6 strainers).

The Council have awarded the Medal and (subject to the specified conditions) the sum of One Hundred Pounds to the author of the design submitted under the device of a "Red Seal" [*Anthony R. Barker*], and a Certificate of Hon. Mention and Twenty Guineas to the author of the design under motto "Centrelines" [*Edw. St. H. Webb*].

(ii.) *The Owen Jones Studentship and £100.*

One application and drawings were received for the Owen Jones Studentship from *S. Herbert Maw* (6 strainers). The Council regret that they are unable to award the Certificate, but they award a Prize of Twenty Guineas to *Mr. S. Herbert Maw*.

(iii.) *The Pugin Studentship and £40.*

Nine applications were received for the Pugin Studentship from the following:—

1. John L. Barry, 4 strainers.
2. A. G. Blackford, 4 strainers.
3. H. Hubert Fraser, 4 strainers.
4. L. McD Gill, 4 strainers.
5. Frank Henner, 4 strainers.
6. Percy May, 4 strainers.
7. Sydney H. Mello, 4 strainers.
8. A. D. Robinson, 4 strainers.
9. Frank W. Smith, 9 strainers.

The Council have awarded the Medal and (subject to the specified conditions) the sum of Forty Pounds to *Mr. S. H. Miller*, and a Certificate of Hon. Mention and Ten Guineas to *Mr. H. Hubert Fraser*.

(iv) *The Godwin Medal and £65.*

Two applications were received for the Godwin Bursary from the following:—

1. J. A. O. Allan: 5 strainers.
2. Dixon Spain: 6 strainers.

The Council have awarded the Medal and (subject to the specified conditions) the sum of £65 to Mr. J. A. O. Allan.

(v.) *The Tite Certificate and £30.*

Twenty-one designs for a Covered Arcade of Shops were submitted under the following mottoes:—

1. "Arcadia": 3 strainers.
2. "Beloe": 3 strainers.
3. "Burton": 3 strainers.
4. "Clarion": 3 strainers.
5. "Chameleon": 3 strainers.
6. "Dezzero": 3 strainers.
7. "Eh ben!": 3 strainers.
8. "Ionic": 3 strainers.
9. "Last Man In": 3 strainers.
10. "Maison Rouge": 3 strainers.
11. "Mitte": 3 strainers.
12. "Palladio": 3 strainers.
13. "Peruzzi": 3 strainers.
14. "Red Cross" (device): 3 strainers.
15. "Red Star" (device): 3 strainers.
16. "Rodin": 3 strainers.
17. "Spurs": 3 strainers.
18. "V": 3 strainers.
19. "Veramo": 3 strainers.
20. "Wien": 3 strainers.
21. "Triangle in Circle" (device): 3 strainers.

The Council have awarded the Certificate and (subject to the specified conditions) the sum of Thirty Pounds to the author of the design bearing the motto "Clarion" [Richard W. M. Gunn], a Prize of Fifteen Guineas to the author of the design under motto "Last Man In" [Bertram Edwin Lisle], and a Prize of Ten Guineas to the author of the design under motto "Dezzero" [S. Herbert Maw].

THE ARTHUR CATES PRIZE. FORTY GUINEAS.

One application only has been received for the Arthur Cates Prize—viz. from Leslie Wilkinson [L.I. (6 strainers)]. The Council have awarded the prize to Mr. Leslie Wilkinson.

PRIZES FOR DESIGN AND CONSTRUCTION.

The Grissell Gold Medal and £10 10s.

Nine designs for a Landing Stage to a Royal Palace from a Lake were submitted under the following mottoes:—

1. "Architectus": 4 strainers.
2. "Corbel": 4 strainers.
3. "Dies": 6 strainers.
4. "Isis": 5 strainers.
5. "Rex": 4 strainers.
6. "Rex": 5 strainers.
7. "Rotten": 3 strainers.
8. "Scarlet Scarab" (device): 5 strainers.
9. "Nophei Gubbus": 4 strainers.

The Council have awarded the Medal and Ten Guineas to the author of the design bearing the motto "Dies" [Dennis William Day].

THE ASHPITEL PRIZE 1908.

The Council, on the recommendation of the Board of Examiners (Architecture), have awarded the Ashpitel Prize (Books value £10) to Mr. Horace James Ash, of Nuneaton, who was registered *Probationer* in 1893, *Student* in 1902, and passed the Final Examination in November 1908.

THE TRAVELLING STUDENTS' WORK.

Soane Medallion 1907.—The Council have approved the drawings executed by Mr. Harold Cooper [Soane Medallist 1907], who travelled in Italy, Switzerland, and France.

Open Jones' Studentship 1907.—The Council have approved the work of Mr. Arthur R. H. Jackson [Open Jones Student 1907], who travelled in Northern Italy, Greece, and Turkey.

Tite Prize 1907.—The Council have approved the work of Mr. G. Salway Nicol [Tite Prize-man 1907], who travelled in Italy.

Pugin Studentship 1908.—The Council have approved the drawings of Mr. Sydney G. Follett [Pugin Student 1908], who travelled in Northamptonshire, Lincolnshire, Oxfordshire, Worcestershire, Gloucestershire, Wiltshire, and Somersetshire.

The Deed of Award bears date 18th January 1909, and is signed by Ernest George, *Chairman*; James S. Gibson, H. V. Lanchester, Alfred W. S. Cross, *Members of Council*; Alexander Graham, *Hon. Sec.*; Herbert G. Tayler, *Assist. Sec.*

Limited Competitions.

*Northern Architectural Association, 6 Highnam Place,
Newcastle-upon-Tyne. 15th January 1909.*

The following letter, having reference to the discussion at the Business Meeting of the 18th January, has been handed in for publication:—

DEAR SIR,—At a meeting of the Practice Committee of the Northern Architectural Association, held on the 18th inst., I was requested to intimate to you that the Committee, having perused the report (JOURNAL R.I.B.A., 9 January 1909) on Mr. Gammell's motion *re* Limited Competitions, desire to express their appreciation of the attitude adopted by the Council of the Institute with regard to the matter.—Yours faithfully,

CHARLES S. ERRINGTON,

The Secretary R.I.B.A. Hon. Secretary.

The Tribunal of Appeal: New Appointment.

The Council, in accordance with Section 178 of the London Building Act 1894, have appointed Mr. John Slater [E.] to fill the seat on the Tribunal of Appeal left vacant by the death of Mr. A. E. Gruning.

Amendment of the London Building Act.

At a conference held at the County Hall on the 14th inst., called by the Superintending Architect of the London County Council "to consider the questions raised in Part V. of the Bill," there were present: representatives of the Councils of the Royal Institute of British Architects, the Surveyors' Institution, the Concrete Institute, the Institute of Builders, the London Master Builders' Association, and the District Surveyors' Association, when the following resolution was carried, with one dissentient:—

"That the scope of the said Bill (Part V.) should be limited to the construction of enclosing, *i.e.* external and party, walls."

The Council of the Institute had the matter before them at their Meeting last Monday and passed the following resolution:—

"That the Council of the Royal Institute of British Architects entirely endorses the resolution passed at the conference held at the County Hall on the 14th inst., and urges that the draft Bill should be amended accordingly."

"That a copy of the report of the conference and of this resolution be sent to the Clerk of the London County Council and to the Superintending Architect."

County Surveyors and Private Practice.

The Council of the Royal Institute of the Architects of Ireland passed the following resolution at their meeting on the 5th inst., and ordered a copy to be sent to the secretary of every county council in Ireland:—

"The Council of the Royal Institute of the Architects of Ireland note with satisfaction that the Galway County Council have lately resolved to require their County Surveyor to devote his entire time to the duties of his official position, and the Council of the Institute takes the opportunity of expressing the hope that a similar resolution, but including also the Assistant County Surveyors, may without delay be passed by every County Council in Ireland who have not already done so, inasmuch as it is contrary to the interests of the public service that persons holding the important and responsible position in question should engage in professional competition with architects and engineers, upon whom, moreover, such competition inflicts a serious injustice, which they as rate-payers are justified in strongly protesting against."

The British Museum.

Mr. A. Hamilton Smith, F.S.A., has been appointed Keeper of the Department of Greek and Roman Antiquities in succession to Mr. Cecil Harcourt Smith, LL.D. [*H.A.*], the newly appointed Director of the Victoria and Albert Museum.

Architects' Benevolent Society.

Owing to the fact that extraordinary demands had been made upon the Architects' Benevolent Society last year—the number of applicants for assistance having largely exceeded that of any previous year—the Council of the Institute have contributed £25 towards the Society's income account, in addition to a contribution of £100 made earlier in the year. Recent donations have also been received from Mrs. Arthur Cates £50, Mr. John T. Christopher £22 15s. (thus increasing the total sum of his donations to £105), Mr. Arnold Mitchell £10 10s., and Mr. John Borrowman £10 10s. Notwithstanding the many and increasing demands on the Society, the number of subscribers shows some falling off. The Treasurer invites the co-operation of members in obtaining additional subscribers.

Concrete Aggregates.

The Special Commission formed by the Executive of the British Fire Prevention Committee "to report upon and define the aggregates suitable for concrete floors intended to be fire-resisting, having due regard to questions of strength, expansion, and the chemical constituents and changes of the aggregates," have issued an interim report, which states that their work has been divided into two sections in charge of two Sub-Committees, the one dealing with Research Work and Tests, and the other with Specifications. The Chairman of the Commission is Sir William Preece, K.C.B., F.R.S.; Chairman of Research and Tests Sub-Committee, Mr. W. T. Hatch, M.Inst.C.E. (representing the Metropolitan Asylums Board); Chairman of Specifications Sub-Committee, Mr. Max. Clarke, F.R.S.; Hon. Secretary, Mr. Matt. Garbutt, A.M.Inst.C.E. The Admiralty, the War Office, and the Norwich Corporation are represented on the Commission, which include also the Chief Engineers of the Manchester Ship Canal, of H.M. Office of Works, and of the Great Northern Railway, the City Engineer, the Deputy Chief Engineer of the Metropolitan Water Board, the Surveyor to the Portman Estate, the Chairman and the Hon. Secretary of the British Fire Prevention Committee, and others.

The Commission find that their inquiry necessitates tests being made over a period of years before final recommendations can be drafted, and that a final report cannot be expected before 1912. Meanwhile, having regard to the divergency of views as to the correct description of the actual materials in use as aggregates, they issue with their interim report the schedule A below, comprising a series of Specifications for Artificial and Natural Materials for Aggregates frequently used in this country for Concrete. These Specifications, the interim report states, may be deemed complete with the exception of (a) the percentage of sulphur allowable in certain of the artificial aggregates, (b) the weight limits for certain volcanic rocks, and (c) the porosity

of certain clay products, which points can alone be decided after considerable further inquiry and test. The tests necessary prior to framing recommendations should be with Concretes in which aggregates complying with the Specifications as now drafted alone will be used. The Commission consider that the Specifications as they stand, even without any recommendations, should be found useful, and may lead to standardisation in the description of aggregates. As to size to which aggregates should be used to fulfil different purposes, &c., these are also matters for which further research is necessary prior to the recommendation being framed.

SCHEDULE A.—PROVISIONAL SPECIFICATIONS FOR CONCRETE AGGREGATES.

ARTIFICIAL MATERIALS FOR AGGREGATES.

1. *Coke Breeze.*

Coke breeze for use as a concrete aggregate shall be entirely coke taken from the gas retort, coke oven, or special furnace. It shall be absolutely free from clinker, coal, and all substances that will not float in water, and from any admixture of material taken from the retort furnace or water-pan below it, and from cinder, ash, or other admixture. The proportion of sulphur in coke breeze shall not be more than..... per cent.

NOTE.—It was decided that the determination of the allowable amount of sulphur should be the subject of future consideration.

2. *Clinker.*

Clinker for use as a concrete aggregate shall be the thoroughly burnt and hard waste product of furnaces, free from dust, shale, or free lime, and not having more than..... per cent. of sulphur.

NOTE.—Pan breeze is included in this definition.

NOTE.—In this case, as in that of coke breeze, it was decided that the determination of the allowable amount of sulphur should be the subject of further consideration.

3. *Blast Furnace Slag.*

Blast furnace slag for use as a concrete aggregate to be obtained and selected from pig-iron smelting furnaces (to the exclusion of basic slag), to be of porous quality, to be washed to remove dust and sulphur, to be without free lime, and not to contain more than..... per cent. of sulphur.

NOTE.—In this case also, it was decided that the allowable amount of sulphur should be the subject of further consideration.

4. *Broken Brick.*

Broken brick for use as a concrete aggregate shall be from well-burnt and perfectly sound and hard clay bricks, such as London stock bricks, or bricks of equal quality, and shall be of the size specified, and be free from old mortar and from dust or particles that will pass through a sieve of $\frac{1}{4}$ -inch mesh.

5. (a) *Gault Clay Burnt.*

Burnt gault clay for use as a concrete aggregate shall be free from free lime and sulphur and from unburnt particles, and shall be thoroughly hard, so that pieces soaked in water for.....hours shall not disintegrate.

NOTE.—It was decided that the Tests Sub-Committee should be asked to determine the length of time to be inserted in the clause.

5. (b) *Ordinary Burnt Clay Ballast.*

Ordinary burnt clay ballast for use as a concrete aggregate shall be free from free lime and sulphur and from unburnt particles, and shall be thoroughly hard, so that pieces soaked in water for.....hours shall not disintegrate.

NOTE.—It was decided that the Tests Sub-Committee should be asked to determine the length of time to be inserted in the clause.

5. (c) *Broken Terra-cotta.*

(1) *Porous.*—Broken porous terra-cotta for use as a concrete aggregate shall be (a) from clean and well-burnt earthenware, unglazed, which has been mixed before firing with some combustible material such as sawdust, so that after firing it is of a porous or cellular texture, or (b) from clean and well-burnt unglazed earthenware which is capable of absorbing at least.....per cent. of its own weight of water.

(2) *Dense.*—Broken dense terra-cotta for use as a concrete aggregate shall be from clean and well-burnt earthen or stone ware, unglazed, and shall be incapable of absorbing more than.....per cent. of its own weight of water.

NOTE.—It was decided that the Tests Sub-Committee should be asked to determine the percentages to be inserted in these clauses.

NATURAL MATERIALS FOR AGGREGATES.

6. *Natural Ballast (Gravel).*

Natural ballast for use as a concrete aggregate shall be gravel from river beds, sea coasts or glacial deposits, washed, if necessary, to remove dirt, loam, earthy or saline matter, clay, and other foreign substances.

7. *Volcanic Rocks.*

All rock of volcanic origin for use as a concrete aggregate shall be entirely free from decomposed parts and must show no signs of expansion, disintegration, or dissolution after having been immersed in water for seventy-two hours.

Rocks of this nature may be divided into the following classes:—

(a) Basalts, traps, dense lavas, &c., weighing not less than.....lbs. per cubic foot. These shall be dense, thoroughly vitrified, not scoriaceous, show a clean fracture when broken, be homogeneous and free from marked cellular structure.

(b) Lavas and rocks of similar character weighing not less than.....lbs. per cubic foot. These shall be hard and free from all soft or organic matter, but they will not be so hard, and will be more cellular than those of section (a).

(c) Pumice weighing not more than.....lbs. per cubic foot. It shall be hard, free from all organic matter, soft dust or impurity, and show a bright silky structure when broken.

NOTE.—It was decided that the Tests Sub-Committee should be asked to determine the weights to be inserted in these clauses.

8. *Granite.*

Granite for use as a concrete aggregate shall be obtained from.....here insert name of quarry, and shall be reduced to the specified dimensions by

crushing or breaking, and shall be close, hard, and of even texture: free from large crystals of felspar, dirt, argillaceous or organic materials, all decomposed particles, and from dust that will pass through a $\frac{1}{16}$ -inch mesh.

9. *Sandstones, Limestones, Quartzites, and Rocks of Similar Character.*

Rocks of these characters for use as concrete aggregates shall be dense, uniform, and homogeneous in structure and composition. They shall have small, even grains and crystalline texture. Fractures shall be clean and free from large flaws. The weight of the material shall not be less than 130 lbs. per cubic foot, nor its crushing strength less than 200 tons per square foot, and it shall not absorb more water than 8 per cent of its weight after immersion for twenty-four hours. The aggregate after preparation shall be free from all dirt, decomposed rock, argillaceous and organic material.

Tests that are deemed to be of immediate necessity are summarised as:—(1) Crushing Tests; (2) Fire Tests; (3) Tests as to the Holding Power of Rods in Concrete; (4) Deterioration Tests; (5) Expansion Tests, and certain chemical tests and analyses.

As regards the continuance of the investigations the Report says:—

Seeing that there are 15 different materials at least to deal with, and that for Crushing Tests the trials should be at 1, 3, 6, 12, 24, and 36 months respectively, the extent of the research necessary is far beyond the time and means available for the Commission to undertake singly. It has thus been deemed advisable that a considerable part of this work shall be distributed among others interested.

The details of the tests have been considered and laid down in a comprehensive manner as a Schedule B, which it is, however, deemed premature to publish at the moment, but to give some idea of the extent of the essential tests only it should be stated that, allowing for 15 different materials, there will be required at least 750 blocks of concrete for crushing tests, 45 large slabs for fire tests, 180 special blocks for holding tests, 288 cylinders for deterioration tests, and 216 blocks for expansion tests.

The British Fire Prevention Committee is prepared to undertake the Fire tests.

The newly formed Concrete Institute is to be invited to undertake the Crushing tests and the tests on the Holding Power of Rods in Concrete.

Mr. A. E. Collins, M.Inst.C.E., of Norwich, has kindly volunteered to undertake the Deterioration tests, and Mr. H. K. G. Bamber, F.C.S., the Expansion tests.

It has been suggested that the reference to the Special Commission should be extended by adding to the word "floors" "and other purposes," whereby the results of the inquiry would probably not only become of greater general utility, but of greater interest to such bodies as the Concrete Institute, to which body the work of the Special Commission may at a later date be most suitably transferred.

* This is not intended to exclude Oolites otherwise suitable.

A Terra-cotta Industry.

Some particulars have been kindly furnished by Lady Baker, widow of Sir Talbot Baker, Bart., of her proposals to establish a terra-cotta industry in white and tinted clays for the counties of Dorset and Hants, in order to bring into prominence the many coloured clays to be found in the two adjoining counties. Some of these clays when treated under certain conditions and baked in a muffled kiln resemble, not only stone, but in many cases delicately tinted marbles. It is the desire of the promoter of this industry to introduce the clays, as in North Italy (where, however, only common red is available), into church, domestic, and garden architecture. This, it is stated, could be done with excellent effect owing to their artistic colouring, and at a price which would place them within the reach of those to whom the cost of stone is prohibitive. In order to carry out her proposals a central depot and small workshop has been established by Lady Baker at her residence, Forest Garden, Burley, Hants, for artistic work, with a small kiln, where experiments with all sorts and kinds of clays from the two neighbouring counties are constantly being made with the most encouraging results. These experiments take place under her own supervision and with the help of an experienced foreman. Later on, if this first venture is successful, Lady Baker has hopes of opening a depot in Dorset nearer the white clay beds at Wareham, Westmoor, or elsewhere, for the carrying-out of heavier work, such as the production of a hollow tile, which has been patented for the exclusive use of the industry.

The white clay beds of Dorset have hitherto furnished material for thousands of clever hands outside the county, and even in foreign countries, with but comparatively few who know how to manipulate them artistically in our midst. In a draft circular sent to the Institute Lady Baker says—

"It would seem as if in these days of non-employment we should do well to teach our rising generation how to turn the mineral wealth of the country to its best advantage on the spot. If Dorset but lead the way, Hampshire will not leave it far behind, but may before long set to work and dig in earnest on its own account, and find material and skill to beautify the churches and mansions of the future in a county where stone is none too plentiful."

New evening art classes are being started under the County Councils with a view to training competent and intelligent workers in clay. Members of these classes will be affiliated to the industry and given work where possible under certain conditions and stipulations to ensure sound workmanship and marketable value. A council of advice is being formed to advise the founder on technical and educational questions. Any patents or registered designs taken out by the founder are to become the property of the industry, and if successful

would help to keep it going. Profits, if any, after necessary employment of hands, would be co-operative among the workers.

Carpenters' Hall Lectures.

The Worshipful Company of Carpenters have arranged for the delivery of the following lectures at the Hall of the Company in London Wall:—February 11, "The National Gallery," by Mr. M. H. Spielmann, F.S.A. (Chairman, the Earl of Plymouth); February 18, "Armour," by Viscount Dillon, F.S.A. (Chairman, Mr. J. Seymour Lucas); February 25, "Design and Craft in English Woodwork," by Professor Berestoid Pite, F. (Chairman, Mr. T. G. Jackson, R.A.); March 4, "Architecture of Hampton Court," by Mr. Ernest Law, F.S.A. (Chairman, Lord Barnard); March 11, "Ancient Buildings and their Influence on Modern Architecture," by Thackeray Turner, J., F.S.A. (Chairman, Sir Aston Webb, R.A.); March 18, "Timbers of Commerce—their present and possible future Sources of Supply," by Mr. H. J. Elwes, F.R.S. (Chairman, Sir Hugh Beevor, Bart., M.D.). The lectures will be illustrated by lantern views. Entrance is free by ticket to be obtained from the Clerk of the Company.

Memorial to Mr. Bodley.

Subscriptions are invited for a memorial to the late Mr. G. F. Bodley, R.A., to be erected in the Church of the Holy Trinity, Kensington Gore, and to take the form of a pediment from a design left by the late architect. A commemorative tablet with portrait and inscription would be placed in another part of the church. Subscriptions should be sent to the Rev. H. B. Coward, Church of the Holy Trinity, Prince Consort Road, Kensington Gore, S.W.

Old Bordighera: a Correction.

2 Devonshire Terrace, Portland Place, W.
16th January, 1909.

To the Editor JOURNAL R.I.B.A.,—

SIR,—In the interesting account of "Old Bordighera" by Mr. Andrew T. Taylor in the present series of the JOURNAL there is an inadvertent slip which you will perhaps permit me to point out in the interests of accuracy.

On page 99 one of the photographic illustrations is entitled "Saluto di Bordighera." The error is a very obvious one, the word "Saluto" having nothing to do with the subject. The term "Salita" is, on the other hand, very applicable to many of the streets in Bordighera and elsewhere, though neither "Saluto" nor "Salita" is appropriate in the case of the street referred to.—Yours faithfully,

GEORGE HORNBLOWER [F.].

REVIEWS.

PLASTERWORK.

The Art of the Plasterer. An Account of the Decorative Development of the Craft, chiefly in England, from the Sixteenth to the Nineteenth Century, in chapters on the Styles of the Classic Period and of the Italian Renaissance, also on Stucco, Parapetto, Scottish, Irish, and Modern Plasterwork. By George P. Bankart, Architect and Craftsman. 4s. Lond., 1908. Pp. 255. ut. B. T. Batford, 94 Hatfield Square.

It is but a few years since what seemed to be a very complete work on plastering was produced by the late Mr. Millar, so that there hardly appeared to be room for another book on the same subject—at least for some time. Yet anyone interested in the matter will soon discover, in looking through the pages of Mr. Bankart's book, that plastering, when studied with the eye of an artist who has also the necessary practical knowledge, is one of those arts which are many-sided, and therefore fascinating, and that it is capable of giving expression to high ideals in the decorative side of architecture. It is precisely one of those ancillary arts so important to the perfection of a building, that no architect should fail to study and to realise the extent to which it may legitimately assist him in the production of an artistic whole.

Mr. Bankart's book is eminently helpful to such a result. Whilst arranged on historical lines, the technical methods are throughout kept in view, so that when describing and illustrating the work peculiar to any epoch the method by which it was produced is also described—at any rate when the means of learning it are to be found by diligent research. And the reader will admit that the book gives ample evidence of the scholarly care with which Mr. Bankart has brought together much scattered information relating to the execution of the finer work. The names of the artists employed on it, whether in Italy, France, or England, are set down where known—and this implies careful reading of the pages of Vasari, Luzzi, and many less known authors. Much in this way was done by Digby Wyatt and others, both as to names and processes; but such information is scattered through sessional papers, and it is a great gain to have them brought together in one work, and to have the artist, his methods and his productions, standing side by side. And what names they are!—some of the greatest in the history of art. We hear much to-day of the lack of occupation for artists. Is not this partly due to their want of training for any form of art but that which goes into a gilt frame or the page of a book? And would not a good many of them think it derogatory to model mouldings or cornices? If they knew more of the history of art, and of such men as Mr. Bankart enumerates, they might be encouraged to widen their opportunities.

The illustrations are most plentiful, and the

examples selected excellent for their purpose. For such a book photography is invaluable. It gives not only the design, but the very touch and manner of handling, with the exact amount of vigour of relief—information which no drawing on a small scale could possibly give. But Mr. Bankart has added, in some cases, plans and, where needful, sections of mouldings. It would be ungrateful to call any of the figures superfluous: but he has, here and there, repeated illustrations of the same subject rather lavishly, and it is not quite evident why the Wyvenhoe house should have its two illustrations fourteen pages apart (pages 57 and 71), or why those of the Hertford front should be separated by twenty-four pages. He has given excellent bits of that very interesting frieze of old Hardwicke Hall, of which, I think, Richardson gave coloured illustrations in a work published some sixty or more years ago, and which the writer saw (in fairly good preservation) fifty years ago. The New River Company's ceiling is well illustrated, as it deserves to be: the date should have been given (1693), for it is an exceptional example and quite perfect. The ceiling of the chapel in the Royal Hospital, Kilmanham, is also well illustrated. It is one of the largest and most elaborate of the examples of English plasterwork of the time (for although in Ireland it is in no way Irish), and was executed about 1685. There is a curious fact about the technique of this work which may be unknown to Mr. Bankart. The heavy fruits and flowers which form the detail of the borderings are affixed to their grounds by *thorns* of the "blackthorn." When the ceiling was repaired in 1903 these long thorns were found to be perfectly sound after the 220 years of the ceiling's existence.

It is pleasant to know that, numerous as are the illustrations in Mr. Bankart's book, they are but a selection—a good representative one, certainly—of the many hundred examples still existing in this country, many in most unexpected places. I remember some years ago going down to Grays in Essex, hideous with cement factories—and was driven by my host some two or three miles to his house, which externally was a singularly plain and unattractive one, perhaps late eighteenth century. The first room I was shown into had a beautiful little Elizabethan ceiling of the style of that in the "Reindeer" at Banbury, preserved when the house had been "improved" later. There are many houses in old provincial towns, and in the country, where one or two rooms still retain fine ceilings of the seventeenth and eighteenth centuries. But, where the work is purely native, they are always, however effective, crarser in execution than where the Italian was present: and any representation of the figure was clumsy and ill-drawn. The English plasterers seem never to have been trained "from the life" as were the Italians.

Mr. Bankart's book will take a good place among those which deal practically with the artistic capa-

bilities of the crafts subsidiary to architecture, and which are daily receiving more attention—architects are no longer satisfied with the lifeless imitation of form. The value of the touch of the hand is more and more recognised. A merely mechanical skill is no longer regarded as the only perfection: and if more men with the education and training of Mr. Bankart would throw themselves with the same thoroughness and enthusiasm into the practical working of the handicrafts, we might yet see buildings really beautiful, within and without, and arousing fresh interest as each detail is examined. The book has one further merit—it has a good index. J. D. CHASE, H.A.A.

BRIDGES AND BRIDGE CONSTRUCTION.

The Elements of Practical Bridge Construction. By T. G. F. TUCKER, F.R.S., and S. J. B. M. TUCKER, F.R.S., A.M.I.C.E. London, 1908. Pp. 12. 12s. 6d. Published by the Author.

Architects, as such, do not perhaps often undertake the responsibility for the design of large bridge structures, but as professional men engaged in constructional practice in brick, in stone, and in steel, they cannot but be interested in all kindred branches of construction, and the subject of bridges is one with which perhaps they are most likely to be concerned.

As stated in the preface, a sad, almost tragic, note is imported into this work on the theory and practice of bridge construction by the regretted death of the author, Mr. Morgan W. Davies, just as the book had reached its completion, and the preface itself is therefore the work of another hand. The work is based upon notes of lectures delivered to students of civil engineering at the Swansea Technical College, the aim of the book being primarily to furnish easily understood rules for the treatment of problems connected with bridge construction. With this object in view the use of higher mathematics has as far as possible been avoided, and an excellent method has been adopted of giving numerous fully worked examples of the various types of existing bridges constructed either of timber or of steel.

The earlier portion of the book is occupied with definitions of various stresses and strains, and diagrams, in considerable detail, of bending moments and shearing forces. These are always to some extent a weak point with beginners, and even in the present book the printed information would probably need a little verbal explanation in places. The distinction between *stress* as an outside force, and *strain* as the effect produced by that force upon a beam or structure, is one which even architects do not always fully enter into. The stresses in framed structures and open trusses of various descriptions are next dealt with analytically and graphically, commencing with the king-post and queen-post and continuing with

various types of open and lattice girders. A word or two of additional explanation might possibly here have been added in one or two instances with advantage; for instance, in discussing a simple trussed girder in the form of an inverted king-post truss, the calculations appear to be based upon the assumption of pivoted joints throughout, without any comment upon the fact that the beam itself has no joints, and is of course continuous throughout the span.

Bowstring girders and cantilever bridges are dealt with on similar lines, the construction of each type being fully analysed. In the case of cantilever bridges mention might have been made of the special stresses to which, as so many eminent engineers have pointed out, large structures of this kind are subject during the actual erection or building out of the cantilevers, such temporary stresses being perhaps entirely different in character from the stresses which the members of the structure will be called upon to bear in the finished bridge. The recent disaster to the great Quebec Bridge while still in course of construction will at once occur to mind in this connection.

Moment of inertia and moment of resistance and the strength of timber, iron, and steel in girders and columns are treated of, special reference being made to the probable effects of *fatigue* of iron and steel under the conditions met with in bridge practice. The way in which the various formulæ given are grouped or tabulated for reference will appeal to most students, and it is to be wished that this conciseness of arrangement were more generally followed in other text-books. The deflection of beams and trusses and the theory of continuous girders of two or more spans are also touched upon at some length.

The most valuable part of the book for the ordinary reader is, however, the portion dealing with the *practice* of bridge construction. Details of riveted joints and connections are first given, then examples of the calculation of wind pressures, loads on arches and framed structures under various conditions, and the construction of masonry arches and steel or iron arched ribs. The complete details of the method of calculation involved in each case cannot of course be included within the scope of the book, but sufficient indication is given to enable the student to obtain a good general grasp of the subject. Suspension bridges and details of their construction and methods of suspension and anchorage, and also such special types as lifting bridges and swing bridges, are also included. The comparatively new form of bridge known as the *pont à transbordeur*, or "transporter" bridge, is also given a special chapter.

The illustrations of the construction of various types of steel bridge, given under the head of "Floors of Bridges," are more particularly applicable to railway and highway bridges; but details are also given of the construction of masonry piers and

foundations of various kinds, as well as of timber or trestle piers and bridges, together with such useful illustrations as those showing the construction of end bearings, bed plates, and expansion rollers. The tables of British standard sections and the worked examples of bridge designing in timber and steel given in the concluding chapter form a very useful conclusion to the work, and will no doubt prove of considerable service to students and others taking up the book.

Architects could perhaps have wished to have included in such a work at least one chapter on the architecture of bridges from an æsthetic point of view, and it is hoped that the *rapproches* between the architect and the engineer, already an established fact in other countries, will eventually enable the two professions to work together in all classes of public work for the public pleasure and for the public good.

WILLIAM R. DAVHOL, A.R.C.S.

FONTS AND FONT COVERS.

Fonts and Font Covers. By F. BOND, a Student of the Inner Temple. 426 illustrations and a table of measurements. 8. 1908. 12s. net. [H. K. Foulsham & Co., Ltd., London.]

It appears to have become the fashion of late years to neglect Gothic as somewhat out of date and to be studied merely with a view to satisfying examiners. No doubt the new fields in Renaissance work which have been opened up may have done something to foster this spirit; but the student should not forget that a proper and intelligent appreciation of Mediaeval work in its many developments is essential to a full understanding of the present-day arts.

The excellent series of works on Gothic Architecture and its accessories now being produced by Mr. Francis Bond cannot fail to revive the interest in Mediaeval work. Since the publication of his valuable work on Gothic Architecture, Mr. Bond has written about Church Screens, and he has now produced a comprehensive and scholarly book on Fonts and Font Covers. The only previous attempts to treat of fonts in historical series were these by Simpson and Coombe (the latter being better known as Paley's Fonts), but these contain little more than a brief introduction to the subject and a number of examples. Mr. Bond is the first to undertake seriously a wide and comprehensive treatment of the whole subject, and he does this in a scholarly and pleasantly written volume replete with excellent photographic illustrations. The book is divided broadly into two divisions, historical and analytical.

When open streams were not available, as in towns, baptism among the early Christians was administered in tanks either below or upon the surface of the ground, and these tanks in many places, notably in Italy, developed into large ones

important Baptisteries; but the great importance attached in the early days to the Sacrament of Baptism received a check when it became the general custom to baptize infants, and Mr. Bond

stering the rite to infants. He also quotes a number of authorities tending to dispose of the idea that total immersion was the ancient form of baptism for adults.



FONT AT BRIDFORD, CUMBERLAND
From *Faith and Faith Cases*

traces the gradual decline from the tank down to the metal or earthenware bowl of post-Reformation times. In Norman times it became necessary to mount the font on legs for convenience in admini-

An attempt is made to classify fonts according to their external design, but there are a number which seem to defy all attempts at classification. The symbolic meaning attached to the form of

fonts is lightly touched on, Mr. Bond not being a believer in the symbolic use of the number eight as applied to an octagonal font: but I think it should be borne in mind that, although the original use of

A brief chapter is given on metal and wooden fonts, and a number of excellent examples in lead are illustrated, with a list of all the known examples.

There are many interesting inscribed fonts still



FONT AT HILTON
From *Fonts and Font-Cutters*

the eight-sided font may not have had a symbolic meaning, it was certainly accounted so in comparatively early times, and the idea may have influenced later designers.

in existence, beginning with the beautiful example at Bridekirk in Cumberland, with its Runie inscription, which has caused experts to vary so widely in their opinions as to its age.

In Part III. the author deals with English fonts historically, beginning with pre-Conquest examples, which he considers may exist in greater numbers than is generally thought. A very large number of Norman fonts still survive: the majority of these are mounted, the unmounted ones being generally circular. Mouldings are the safest guide to dates, but the reader is warned that the details of a font are probably later than similar work on the structure of the church, owing to the time which would elapse before the craft-man could become thoroughly familiar with them. Great richness of carved ornament and sculpture is the distinguishing feature of the eleventh and twelfth century fonts. Arcading became a popular mode of decorating the sides, no doubt because of its convenience in affording niches for images. Much of the figure sculpture illustrates incidents in the lives of holy persons, and Mr. Bond relates the legends most commonly met with. There is an interesting series of fonts of black marble made in Tournai and imported into this country. They are all supported on five legs, the central one being very massive, and are all richly carved.

The great majority of thirteenth-century fonts are of black marble, chiefly from Purbeck, but also obtained from Peterworth and Bethereden. These are very uniform in design, having usually square or octagonal bowls resting on five legs. There are also to be found many freestone copies of these designs. The great difference between the richness of the Norman fonts and the simplicity of those made in the Early English period was no doubt due to the hardness of the material and the risk of damage in transit from the "factory." Another class of thirteenth-century fonts are those made of local freestone, other than mere copies of marble examples, and they are distinguished by a great diversity in design and a quiet restraint in the use of ornament. Marble went out of fashion in the fourteenth century, and font design became standardised, the bowl being nearly always polygonal, usually an octagon. Sometimes the font was unmounted, but more often it was set on a polygonal pedestal. The period was one of lavish ornament, rich detail being used wherever possible, and usually with exquisite taste. The most popular device for ornamenting the sides of the octagon was by means of niches under oggee arches, one of the most original and successful being the twelve-sided font at Hitchin, Herts.

A vast number of fonts were re-made during the fifteenth century and up to the Dissolution. The tendency to copy and plagiarise became very pronounced during this period, and the re-introduction of much figure sculpture is a chief characteristic, the *motive* being probably more religious than artistic. Many fonts show traces of rich colouring and gilding.

A list is given of the series of Seven Sacrament fonts, nearly all of which are in East Anglia. A

number of illustrations of the panels of the Gresham font are given, though by a slip the titles "Matrimony" and "Ordination" are interchanged. Mr. Bond gives us a painful chapter on Desecration of Fonts, and some interesting matter relative to post-Reformation examples.

In Part IV. Mr. Bond has had the benefit of Mr. E. C. Eden's assistance in describing Font Covers, a subject not before so fully treated. Font covers originated in the desire to prevent the consecrated water, which was retained for a time in the font, from being stolen for the purposes of "black magic." The early forms were merely the wooden lids secured by an iron bar and padlock, but later on they became especially in East Anglia, towering tabernacles of openwork tracery, richly painted and gilded. Some covers were movable, being usually suspended above the font with counterpoise; others stood on the floor and were provided with doors for access. A good example of the latter treatment may be found at Thaxted, Essex. There is a fourteenth-century stone cover or enclosure round the font at Little Beddington, Herts, as in Index Locorum.

The book is illustrated with no fewer than 126 photographic examples, all to a large scale, and the work of reference is much facilitated by a useful Index Locorum and an Index Rerum; and, although a critic might be able to point out a painter's slip here and there, these do not in any way detract from the interest and usefulness of the book, which I can cordially recommend to anyone, lay or professional, who takes an interest in old fonts. It is by far the best work yet published on the subject.

A. WRIGHTSON ANDERSON, F.R.S.

MINUTES. VII.

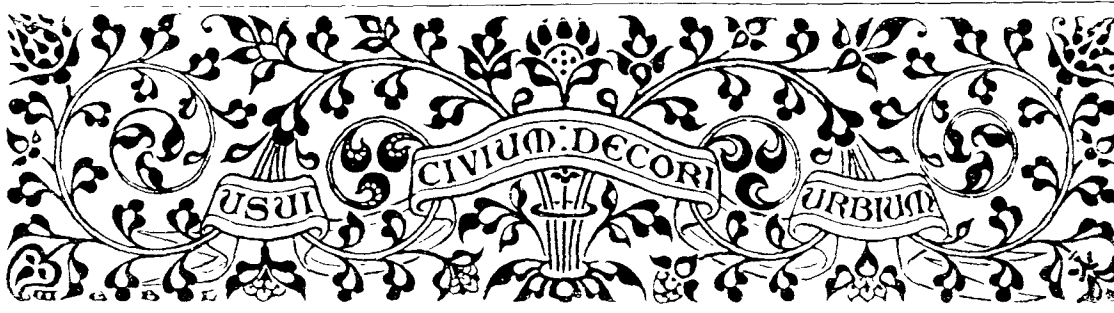
At the Sixth General Meeting (Ordinary) of the Session 1908-9, held Monday, 18th January 1909, at 8 p.m. - Present: Mr. Ernest George, *President*, in the Chair; 21 Fellows (including 7 members of the Council); 37 Associates (including 1 member of the Council); and numerous visitors. The Minutes of the Meeting held Monday, 14th January 1909, p. 188, were taken as read and signed as correct.

The following Associates attending for the first time since their election were formally admitted by the President: William Baird, James Sydney Cable, Henry Valerius Melchior-Lucas, and Bryan Watson.

A Paper on "Practical Motions" having been read by the author, Mr. R. Stephen Aylmer, F.R.S., and discussed, the thanks of the Meeting were passed to him by acclamation.

The Assistant Secretary has read the Doctor Awards and Prizes and Studentships 1909 made by the Council under the Common Seal; the sealed envelopes bearing the names of successful competitors were opened and the names declared.

The proceedings of the Council of the Meeting separately at 10 p.m.



ADDRESS TO STUDENTS.

Delivered by the President, Mr. ERNEST GEORGE [*Royal Gold Medallist 1896*], at the General Meeting, Monday, 1st February 1909.

IT is my privilege to night to address our future architects, our students, may I say my fellow-students of architecture?—for the study of the great art is not accomplished in a lifetime. The young, however, have a capacity for learning and assimilating when the old have got into ruts and have acquired prejudices that hinder the reception of new impressions.

I speak to you who have the responsibility of remodelling our cities and of making the world that is to be, I trust with a great increase to its beauty. An artist paints his picture, and if it fails it can be obliterated, or if it has meretricious cleverness it endures for a time but when found out its place need know it no more. In the art of building the case is more serious: what we build must be seen whether we will or no: it has its influence on the “man in the street.” It may be a source of pleasure, or it may cause familiarity with and toleration of that which is bad.

As architects it is a first necessity that we should be *builders*, for the arts of building and of architecture cannot be separated. The simplest structure may attain to architecture by admirable proportion and by a wise disposition of the parts: whether decoration comes in or not is of secondary importance. The question of style is a minor matter, for the artist’s hand will be evident in the work, whatever the treatment he affects or the vogue of his time.

The education of the architect has been taken seriously of late, and his facilities for study are greater than ever before. I will not discuss the details of the training of which you have the advantage, but with it all I would say that what you do earnestly for yourselves is worth more than all that your able professors can do for you. They will endeavour to put you on the right path and to inculcate the principles, but it remains for you to give them practical application.

Much has been said about technical training, with the study and handling of material: and it would be all to the advantage of the architect that he should be a good joiner, mason, or worker in metal. When drawing a moulding he should have stone, oak, or plaster in his mind. He has so many good books of “Examples” now that he is apt to become a paper architect, losing familiarity and touch with the realities of building. Modelling is a useful accomplishment, and should be part of the training: it aids in the expression of ideas where the pencil often fails. The architect has, however, in the few years that can be given to preparation, so much to acquire that he can hardly spare time to grow efficient in the various crafts. Some have found practical knowledge by a term in a builder’s yard, and I think I am right in saying that this was the early training of Richard Bentley, whose architecture gives evidence of his knowledge as a masterful constructor. Still, a boy must leave school prematurely and in a

half-baked condition if he seeks apprenticeship to the crafts, and it is difficult to say at what age general education should give place to specialising.

The greatest architect that England has produced was known only as a man of science and a professor of astronomy until the age of thirty, when the resources of his great mind were turned to the art of building, at which he presently showed himself an accomplished artist. Notwithstanding this late start in life, Dr. Christopher Wren was allotted sixty years in which to build our Cathedral, rebuild our City, and raise the many monuments that he has left to us as a precious heritage.

With the rudiments of scheming and planning, freehand drawing must be cultivated: and working from the cast and from the figure is perhaps the best training for the eye and for the hand, while it teaches a sense of proportion.

No work is more profitable than the measuring and careful study of existing buildings, making choice of fine specimens, and I am pleased to state that suggestions and directions for the guidance of students will shortly be published by the Institute in pamphlet form, giving a list of examples throughout the country that are considered most useful for study, also specifying those which will be valued as an addition to our architectural records. Those of you who go out with our scholarships, instead of sketching in a desultory way, will be advised to study seriously some building of distinct architectural merit, and it is intended that the result shall be published in some permanent form. It should add to the student's zeal and interest if he feels that he is thus contributing to the world's store of knowledge. See what details and mouldings give the strength and the quality that you admire; note their size and projection, but, doing this, show also their place on the building. Note-books are sometimes filled with interesting doorways or windows, without a record of their relation to one another or to the wall-spaces that give them value. Study critically the buildings that impress you as fine; find out where and why they are *good*. It is a curious thing that *criticism* has come to mean exposing the faults; that is the easier and the more telling form, but it is a bad spirit to adopt. I have often been shocked at the flippant criticism by mediocre men of fine work of which they would themselves be quite incapable. The faults they see probably exist, but the quality and essence of the building are not in those imperfections. Make mental notes, if you will, of ways that you feel should be avoided, but seek the good first; it is the more profitable study.

As architects you will often be asked what you think of this man or that; perhaps you do not feel the architect in question to be one of our great lights. Let me beg of you to stretch a point and say all that is generous, though perhaps of a rival. It is unsportsmanlike to give away a professional brother or to damn him with faint praise. His reputation is his stock-in-trade. Let us among ourselves use all frankness: it is helpful to have our weaknesses pointed out if we are wise enough to profit thereby.

We have had so much of draughtsmanship, sometimes with very little behind it, that great facility has got rather into disrepute. The mind is sometimes better employed when the fingers are not too nimble; nevertheless the power to draw and to express your ideas with the pencil is one of the happiest endowments of the architect, and should be assiduously cultivated. There should be a careful avoidance of tricky methods, for we have seen drawings so pretty in themselves that the absence of good design is overlooked; the drawing is looked upon as an end, instead of being a simple medium or a diagram of the proposed building.

It is curious to look back on the fashions that have prevailed in my own time. When I was a pupil most perspectives were coloured, and there was a small income for many who were adepts at a skilful throwing-on of colour; then George Street, Norman Shaw, and Eden Nesfield showed how much of the real qualities of a building could be expressed by

line. One incident of the time was the discovery that one of these masters used a notched straight-edge, thereby admirably rendering the texture of roofs. I confess to having sacrificed a T-square myself in that cause. Light and shade, whether with line or the brush, are desirable to explain fairly the shape of a building. There was a pretty and telling way of leaving roofs and spaces white, as if under snow, with strong black touches here and there, the result being effective but not a fair rendering of the future structure. In one of my wanderings I met a nice young man who proposed making a study of art: I am not sure that he could draw, but he was interested in some blue and red chalk with which he touched in passages of his work: he found this treatment in the studies of the Old Masters to which he desired his sketches should approximate. If you have the power of drawing, it matters very little by what vehicle your thoughts are told, and all tricks are a hindrance to truthful expression. A method that obtained lately among the younger students was that of running the lines out beyond their natural limit, thus giving to a cornice or a stringcourse an unreal weight and importance instead of defining its contour. This may look brisk and sketchy, but a student's time is not very valuable, and a further half hour would be well spent in making the drawing correctly explain its parts. Do not be afraid of being methodical and exact, rather than sketchy. Nothing is more offensive than "sketchy" passages from a hand without the artist's mind, impressionism which is only scribble.

Fortunately Bohemianism has ceased to be a distinguishing mark of the student, for I can remember when nearly every Academy student wore long bushy hair: I am not sure whether I did so myself: I could have done so then. I see among you now men of fashion, with the greatest correctness of costume. Still I would say to the serious student do not be so beautifully dressed that you cannot carry a sketchbook or a two-foot rule in your pocket. You should be so far ready for work that the eight o'clock dinner, for which you must dress, is not always imperative. Michael Angelo, during a fifteen hours' spell of work, was content to munch bread; he slept little, finding that sleep made his head ache: he said that though he had made himself rich by his work he had lived always as a poor man. We may not all, like this giant, bring the mind to dominate the body, but I am sure that simplicity of life is to be aimed at by the true artist. You are fortunate in having your great interest in life; you have no need of the expensive pleasures or distractions that save the gilded youth from being bored. Much good work has been done in a garret, and I believe that the admirably appointed young man finds it less easy to throw his soul into his work than does one to whom Art is the companion and solace. I would not have the artist a drudge; variety, good company, and recreation are necessary if the work is to be a pleasure. It is essential also to move among men and to make good friends, for it is no use being a good architect if you have not a client to bring the work. Accept week-end invitations—and, if you can, interest your host in a clever suggestion for altering and beautifying his place.

I hope with most of you that your art is sufficiently interesting to be the purpose of a holiday, whether in getting away on a Saturday or taking ten days in Brittany. You will be told that you want relaxation from work—golf, perhaps, or a lounge in a house-boat. From my own experience I would say there is more change of thought and of interest for the mind in seeing and assimilating fine things, living out of doors all day, sketching and measuring with a change of scene, of climate, diet, and language. Our own beautiful country will supply matter enough for study, but crossing the Channel I have found to make a more complete break with the life of the office.

I suppose, without question, in the period that my memory covers, Mr. Norman Shaw has been the most followed, I might say the most copied, through the successive phases of his

work : for the strongest men will always have a large following of those who imitate their manner. I value to this day the several books I managed to buy out of my youthful allowance, and among these are the sketches of Shaw and Nesfield. In their exposition of the architecture of France the examples chosen are all Mediæval, later work was not accounted of in those days.

I remember, in my own early visits to France and Spain, regarding the Renaissance screens in the churches as wicked innovations, although fascinated by them against my judgment. A chateau of Louis Douze or of Francois Premier was a rich find, while a work by Mansard or Vanbrugh we counted ponderous and dull. By common consent we now seek the more formal examples of buildings, and what was once dull we find dignified and restrained : while some will tell us that the quaintly picturesque, our first love, is hardly to be taken seriously as architecture. Unquestionably the student should study the purer classical works, rather than the picturesque Jacobean or Dutch versions, or perversions, of the same. There was an earnest attempt to gather up the traditions that were snapped in Tudor times ; now the prevailing desire is to revive the later methods that had become traditional here until the advent of chaos ; and in this last is our best chance of arriving at a happy unity of aim.

We may be disturbed again by waves of fashion, for no arbitrary law exists in matters of taste. There are Eastern races with a really fine sense of beauty, as shown in their splendid arrangements of colour and in their gorgeous stuffs : yet, among these, a lady can make no claim to beauty unless she is fat. Our standard differs from theirs and our taste is more catholic ; yet it is difficult even for the most cultivated to keep an open mind for the appreciation of what is fine if it is not in vogue.

It is unnecessary to insist on the advantage of wide knowledge and of general culture. Avoiding the purely archæological spirit, History is perhaps the most interesting subject and the most sympathetic with our central thought or study. The world's history is written in its architecture, and it is a part of our schooling to follow the developments and to trace the growth of the various methods or styles, noting the influence of one country or people upon another. Our interest is less in the names or in the characters and peculiarities of kings than in the *work* that was accomplished in given periods and in the great masters of the Arts that such periods produced. If a name or a date is mentioned, we can localise it by calling up the Byzantine, Mediæval, or Renaissance environment of the subject ; it makes the past very real to us. The knowledge of foreign tongues is an invaluable aid to the architect. Through my own indolence in acquiring or in keeping up my knowledge of these, many precious books are closed to me ; while in travelling one is often surrounded by people with whom the exchange of ideas and even the gentle amenities of life are difficult.

I have spoken of the study of fine buildings and of the use and misuse of the note-book, which we like to bring home full of pretty things. In our search for the latter we may possibly miss what is noblest in architecture. The sublime is not readily transferred to the sketch-book ; it is no use making picturesque jottings of the Parthenon or the Pantheon. Those who have great facility with the pencil find less effort in the use of the fingers than in the exercise of the mind.

Drawing, to which I give a high place, may at any time become a snare, being made a substitute for contemplation and analytical thought, the seeking out of a reason for the forms we see, learning whether they were determined by the necessities of construction or were evolved as a part of a beautiful composition.

My fellow-workers may expect of me some remarks about water-colour sketching, which has always been my happiest recreation. Under favourable conditions of climate, with a sympathetic friend, a day spent with the brush in a spot selected for its beauty is as good a time as I can well imagine. The travelling student may wisely turn to brushwork for relaxa-

tion from the more exacting forms of study. We architects do not sufficiently consider the value of colour. We think of form, and perhaps light and shadow; too often conceiving a scheme in elevation only. One who paints must consider buildings in perspective, also taking account of their colour and their relation to surroundings. Yet of the student who is good enough to obtain an architectural prize from the Royal Academy or from our Royal Institute I would beg that he stick to his trade. Let him not, because he finds that he can paint pleasantly, throw architecture aside, however great the difficulties to be faced, before palaces or cathedrals are entrusted to him.

I have spoken of drawing and painting: what shall one say of photography? The art, or shall we say the science, brings to the eye all that is finest from all parts of the world—Indian temples, Venetian palaces, Eastern minarets, the sculptured doorways of great cathedrals, and these often taken with judicious lighting. By photographs or photo-prints memories of the world-treasures are brought to the armchair. As affects the student this is a doubtful advantage: that which he attains without effort is hardly a possession: he had better worry himself for hours making an indifferent drawing than secure the best of photographs or of book illustrations of his subject.

In the last few years choice books have been added to our architectural libraries: the subjects, admirably selected by men of judgment, especially setting forth the beautiful houses throughout our own country. These we value while urging the student not to misuse them or make them an excuse for shirking the prosaic work of measurement and personal study: he is apt to be distracted by the quantity of material ready to hand and the many inventions presented to him, hardly leaving him the chance of originating. There is also the handy "kodak," by means of which he could snapshot that which would take a day to draw. We accept these things with our advanced civilisation, while we question if art is advanced by photography any more than music by the marvellous gramophone.

We have discussed the methods of study; how can the acquired knowledge best be applied or tested? I think there is no more useful exercise than to enter heartily into these competitions for medals and prizes. Doing so you are for the time being the architect to a palace or some monumental work with grandeur and scale to which you may perhaps never have the chance of building: but whether the prize falls to you or another, the benefit of the effort remains yours. Again, a little later, you begin for yourselves, and confiding relations entrust you with an additional wing, stables, or a motor-house. Your time is not filled up as it should be, and it is worth your while to take your two-hundredth chance in competition for the exercise of your imagination and powers of design: it is valuable training. The Open Competition is a quite unreasonable venture if looked upon in any other light than this: a multitude doing the work for which one only is commissioned.

This evening is the first occasion on which the prize drawings have been with us during the Address to Students and the Review of their Works: a discriminating friend will presently discuss the latter critically and in detail. I will only say that the competitive drawings reach a higher level this year. Some of those that escape mention might have carried off a prize in some previous competitions. There is not only good draughtsmanship, but in some cases evidence of design and composition, with an effort towards the "grand manner."

As we have said, there are fashions in our art and they influence the student. It is interesting to note that whatever the subject set, whether the "Landing Stage," the "Corridor of Shops," or the "Pavilion," a dome of noble span is a leading element in the designs. Perhaps domes may become features in the architecture of the future: during my own career I have not been allowed the opportunity of raising a dome.

We have discussed methods of study and modes of working and drawing, but we must keep well in mind that these are but preliminary steps and stages. Looking on our great Cathedrals and the noble monuments of the past, we must remember how little they owe to draughtsmanship. No beautiful drawings, such as we see to-night, preceded the building of Westminster Abbey. The master mason chalked out indications of what was to be, and such lines were followed with more or less accuracy, slight inequalities giving a charm to the whole. It is pleasant to come upon elevations or studies for buildings by the great masters, but these, as drawings, would not pass muster with those before us to-night. We judge the embryo architect by his drawings, and it is generally a fair test of his worth. Yet we would remind him that to use art and science in Building is his vocation, and there is none higher.

A poet has said—

To build ! to build !
That is the noblest art of all the arts.
Painting and sculpture are but images.
Are merely shadows cast by outward things
On stone or canvas, having in themselves
No separate existence. Architecture
Existing in itself, and not in seeming
A something it is not, surpasses them
As substance shadow.

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CRITICISM OF WORK SUBMITTED FOR THE INSTITUTE PRIZES AND STUDENTSHIPS 1908-09.

By PAUL WATERHOUSE, M.A. Oxon. [F.].

Read at the General Meeting of the Royal Institute of British Architects, 1st February 1909

MR. PRESIDENT, LADIES AND GENTLEMEN,—

THERE is so much ground for me to cover to-night that I must dispense with all unnecessary preface. Only two things will I say. First to you, Sir, that I very greatly appreciate the honour of being allowed to join the group of men who have in turn delivered this annual homily: and secondly, to you my friends the competitors, that I hope you will not take any of my criticisms too seriously. Do not misunderstand me. By no means do I mean that I have approached my task in any spirit of levity or irresponsibility. I only mean this, that with a very few exceptions all the shortcomings upon which I have to touch are failings of the most curable kind. Youth, for example, and inexperience, are complaints which require no drugs for their removal; and ignorance, of which I have found surprisingly little, is the most hopeful sickness of all. It is the empty vessel into which wisdom can be poured without fear of contamination. The disease at which the architectural doctor shakes his head is a brain whose fertility is stocked with unwholesome detail and whose powers of invention fly at the least impulse to the begetting of unclean novelties. A brain so stored and so equipped for production is, in a man past thirty, probably incurable. Its possessor should at that age quit architecture like poison and become a potato-merchant or anything else which is gentlemanly and jovial. There are only two competitors in whom I see any real tendency to this disease, and as both have entered competitions in which there is a strict age limit they have probably time for regeneration; so that no one will need to take any words of mine as irreparable condemnation. With perhaps half a dozen exceptions I could praise every one all round --

but that would be so uninteresting, wouldn't it? Therefore take my grumblings as those of a friend in a fireside chat, and if I am of any help to you, I can only say that I am genuinely proud to be thus sharing for a moment in the careers of a set of young artists whose future bids fair to be a bright one. For, apart from jest and apart from flattery, there is among your sixty-seven good selves quite seventy-five per cent. of brilliant promise.

THE ESSAY MEDAL.

I have read the whole of the nine essays submitted. The three selected for mention are happily better than the average production of recent years, but that is not saying enough. This prize should undoubtedly attract a better class of writing than we generally secure: our literary level is nowhere near the standard attained among our draughtsmen. Why is this? The present age is an age of splendid literature, good prose is as common as burglary, and yet we cannot get it submitted in any bulk for this medal and twenty-five guineas. "Void's" work (Mr. H. A. Hill, B.A.) is a sensible essay, not very brilliant, perhaps, nor very clever in its conclusions, but the thread of thought is clear and the style free from blemishes. He beats his rivals by a not too wide margin. "Vita Nuova" (Mr. Horace Cubitt) has lapses of style, but his matter is in some ways more interesting than that of "Void." "New Lamps for Old" (Mr. Ross) submits a bright and readable paper, and he avoids the fault of producing a mere compilation: his work is at least a continuous composition. "Modus operandi" and "X. Y. Z." come, in my opinion, in the second class: the former writes cleverly but too slightly; he has some original points, but rather shirks the larger issues: the latter, on the contrary, is too prolix, and, in the language of the golf-links, is "poor in his approach." It is a great thing to get on to the green and to do it neatly: also, of course, one should if possible "hole out." Of the remaining four I have no wish to make particular criticisms by name. I will merely say to one of them, "Be graceful as well as industrious": to another, "Write a continuous essay, not a series of chapters"; to a third, "Please don't be vulgar"; and to the last, "Develop." To all I might commend one very simple truth—that the only recipe for writing is reading.

MEASURED DRAWINGS.

In this competition there are two competitors who press the winner hard. Mr. Ernest Wray ("San Gallo") is the Medallist, and his survey of the Church of the Madonna di San Biagio at Montepulciano is a well-drawn and complete record of an interesting bit of work. One is compelled to reflect as one studies it that our present age is wonderfully normal in its classicism! Were this effort of "San Gallo's" submitted for the Tite Prize we should have a word to say about one or two solecisms. The sheet of full-size mouldings is especially interesting by reason of certain idiosyncrasies. It rather pains me to acknowledge this. Mr. Alan Brace, who wins a second prize (as "Flint") with a study of Lavenham Church, has turned out a very beautiful piece of pencil work: his handling is nearly perfect, and I am impelled to conclude that if his delineation had been more complete he would have won the prize. The absence of a longitudinal section deprives us of any record of the nave arcade. In recording a building of this description a student should work on the assumption that his drawings could be used if necessary (which Heaven forbid!) for a complete reconstruction of the building. "Persiste," also a close competitor, gives an excellent plan of Horham Hall, but spoiled his results by unsympathetic elevations (I borrow this excellent expression from a member of the judging committee). Even a new building should hardly have been drawn so mechanically: and one fears that as he records his Tudor bricks as measuring four courses to the foot he can hardly have measured them!

"Antiquis Debetur Veneratio" submits but a poor drawing of the Glasgow Royal Infirmary: and it may also be said that though "Cistercian," "Metopemania," and "3"

have done good practice in their records of Fountains, Greenwich, and St. Martin's, the result is hardly good enough in drawing to stand beside previous delineations of these well-known monuments. The very spirit of Inwood has entered into "Erchthium." His thin line study of St. Pancras Church might have been drawn in 1820.

"Esse Quam Videri" offers drawings of Emmanuel College, Cambridge; they are finished in pencil and wash, with cast shadows. The effect is very soft and harmonious, but lacks the decision desirable in a record.

THE SOANE MEDALLION.

That Casino was an excellent subject for the Soane Medallion. It has set men thinking not merely of the old truth that an architectural design must express the spirit of the building it clothes, but also of the question (always an important question) how far that expression must be explicit, how far literal, and to what extent curbed. For "Conditio" I feel sympathy and disappointment. More than any rival he has been faithful to the spirit or to a possible spirit of the subject, but he suffers for his realism. He should have tempered truth with dignity. In other words, by his very realism he falls short of architecture, and that is why he cannot have an architectural prize. His plan is fairly good, his elevations are mischievously clever, and his perspective as a composition and as a bit of quiet colouring is excellent. But if I may put it as clearly as I can—his Casino, if conducted on the lines of his design, would deserve to be closed.

Mr. Anthony Barker, whose badge is a "Red Seal," has caught the breeze or triviality without relapsing either into buffoonery or vice. His fancy has had free rein; but he has clothed his imagination in so much dignity that the result is a far more alluring one than a more riotous licence could ever secure. There are blemishes in the design, but the whole effect, in mass and in detail, is suitable and harmonious. The blemishes are:—an ambiguity as to the support of the dome, an inaccuracy in the perspective, which raises the dome above its real height, and, finally, a probability that the circular form of the drum would contrast very harshly with the lines of the proscenium. The sections supplied do not exhibit this point, but there is at least a fear in my mind that the interior effect of the big hall would be spoiled by it. I cannot turn from this design without noticing the great beauty of the perspective sketch and the fantastic symbolism of the decoration surrounding the block plan. The workmanship of this competitor is full of engaging energy.

"Centrelines," a scheme by Mr. A. Berrington, is another design overflowing with that buoyancy which characterises the products of a good Soane year. Probably it was time rather than any lack of impetus which cut short the completion of the perspective. What there is of it shows a happy knack of draughtsmanship, and the power to infuse a drawing with the spirit of the designer. It is full of an irresistible gaiety. The elevations and sections are cleverly drawn in a rather unusual style. The plan is fair, but there seems to be no provision for a stage in the concert room. The designer has, evidently with intention, introduced a breach of symmetry into the elevation. It is rather difficult to sympathise with that intention.

"Nothing venture nothing win" has a perspective very similar in character to that of the winning set—in fact there are evidences of identity in the authorship; but the working out of this design is not nearly so good as that of the successful scheme. The plan is, I consider, rather unduly extended. The detail is disappointing and, shall I say, inclined to be dreary. It lacks spontaneity and gaiety. But the skyline is good. "Pan's" plan is fair, but, I fear, costly. His detail is rich but not wholesome, and his perspective drawing is unsatisfactory. But he has energy and wits. "Che Sara Sara" must study more, he is not quite up to competition level. "Nisch," I am sure, will very soon do something better than this attempt; his work is unequal. There are in it bits of good design and good drawing saddened by

lapses. But this is a hopeful condition. "Gee Ess Ae" has a rather rudimentary plan to offer, but there is some pretty drawing in the elevations and sections, prettier, in fact, than the design. His perspective is, unfortunately, poor. For many things I like "Two and One." His plan is interesting, and his Blois staircases at the angles are not only effective but well handled. He has apparently overlooked the necessity for a concert stage, but his scheme has considerable general merit. "Rush" is probably as much disappointed with his drawings as I am. They are full of nice thought and nice intentions: in fact, his building would be better than the drawings. He should study method by becoming familiar with the works of others. He has power both to design and to draw.

THE OWEN JONES STUDENTSHIP.

Unhappily this important prize has to be withheld. But Mr. Maw (the sole competitor), who is awarded twenty guineas, has sent in some interesting work. His subjects are the Corsini chapel in San Giovanni in Laterano, and the ceiling of the Scala d'Oro at Venice. The studies of the latter are laborious and effective. The amount of work put into the pictorial panels and their rich marginal frames is astonishing. The judges possibly felt that an equal amount of labour might have covered a wider field of study. But I take off my hat to his industry.

THE PUGIN STUDENTSHIP.

There is a full competition for this interesting prize and a very high level is reached. The winner, Mr. S. H. Miller, has mastered the enviable trick of drawing a perspective sketch in such a way as to give real information in detail. He is happy both with ink and pencil, and in a study of some Fairford glass shows that he can hold his own with colour too. Mr. Fraser has done good work at Southwold, and, like the winner, shows himself to be capable in more than one medium. Mr. Gill is to be commended, not merely for excellent draughtsmanship, but for some really good printing and writing, especially on his Chichester sheets. Messrs. Smith and Hearne, falling into a very good year, are rather outclassed, and the work of Mr. May and Mr. Berry is rather unequal. This is a very common occurrence in the Pugin competitions, and generally means nothing worse than that the competitor is advancing, and therefore shows to better advantage in his later than in his earlier sketches. I advise Mr. Robinson to settle down to one of his styles, or perhaps two: he has too many methods at present, and has even gone the length (I admit rather effectively) of using two methods in one sketch. Mr. Blackford is at times unnecessarily dirty. It is a great thing, if you find yourself with no material, but a 4-B pencil and a piece of paper as rough as a gravel path, to be able to obtain a result: but why adopt these difficulties as permanent expedients? I admit that I am speaking in slight exaggeration, and I certainly commend his facility.

THE TITE PRIZE.

To "Triangle in circle," "Mitre," "V," "Maison Rouge," "Red Cross," and "Burton," who are competitors for the Tite Prize, I wish length of days and length of study. Youth, I fancy, is their worst complaint, for their work is immature. "Triangle in circle's" arcade would, I believe, be insufficiently lighted, for his roof is solid, and his lighting is only from lunettes. "V" is barbaric as well as immature: but there is hope in that barbarism—it may be tamed "into something rich and strange": at present it is strange without being rich. It was hard lines on "Burton" that he should hang next the winner, but he will do better when he has learnt that it is better to be over-orthodox than over-inventive. His work is heretical.

The Tite Prize competition is generally more sober than that for the Soane: the great names quoted in the conditions as exemplars perhaps account for this result, though the shadow of Palladio cannot be said to have oppressed the candidate who does battle under

Palladio's name. This designer, in his desire to make a great arch at each entrance, has set himself a problem with which he has been unable to cope. True he gets in his really clever perspective drawing a charming effect of blue sky and Italian landscape, but at what horrible cost to his outside elevation! House room having been entirely sacrificed up to the height of the arch, the author, instead of making up for lost room in the superstructure, has piled thereon a dream—a rather bad dream—of wanton colonnade. But he draws well, and will, I think, submit something better later on. "Veramo" has spoiled a courageous effort by slovenly draughtsman-ship.

I seem to have begun at the weak end of the Tite group, so I will continue my observations in the same progression. If the gentlemen I have already mentioned fall into the third class it should be understood that the work of the ten young architects whom I put in the second class shows here and there exceptional merit. "Arcadia"—I take their names in no definite order—shows a nice handling of a large interior order which is effectively set out in a delicate sepia perspective. His brushwork is, I think, better than his penwork: there are some weak bits of design in his exterior elevations. "Beloe" exhibits an ambitious treatment of domed bays, but his external elevation is again rather unsatisfactory. It contains no bad faults, but it is stiff without reaching real dignity. "Red Star," like "Palladio," is the victim of a monster opening. Such an opening does, of course, help the lighting of the arcade, but it very seriously diminishes the shelter and wrecks the end elevation both in accommodation and in effect. The draughtsmanship of this design is unequal and uncertain: there is a curious artistic error in the section of the balustrade, and the glass roof is dull in design. The design by "Spurs," though fairly well drawn, is rather stunted in its effect, a fault which is all the more noticeable in an age which is given to elongation. I half suspect the Corinthian pilasters (of the interior order) of being short of the normal stature, and the same effect of arrested growth haunts the exterior. The shops are rather poor, but there is good strong work in this design.

The rather complex street front of the scheme submitted by "Eh bien" fails to please me. The use of superimposed orders on a bay window is at best a doubtful policy, and it is a dull business to put one Ionic above another. But there is spirit in this craftsman, and his shops are good. "Rodin" set forth with Cipollino columns on the brain. They have tired him. He doesn't say that they are Cipollino, but I think he means it, and if so I would remind him that there are few things more dreary than Cipollino, which has been taking the air in Britain for a few years. It is better indoors. These great green shafts have rather drowned both the perspective and the sections. If "Rodin" will reconsider his external elevation he will agree with me that the lintel, which crosses the columns of the facade waist high, is a mistake. It looks insecure. "Ionic" displays in profusion one of the special tricks of our age, the dropping of pendant decorations from the capitals of Ionic columns. In his 1-scale drawings these figure as napkins. Happily, in his large scale details, he has repented of the napkins and turned them into strings of husks, but he makes up for his repentance by a profusion of linen swags over the shop fronts. Except for this defect the design is good.

At the risk of seeming tedious, I must still allude to three more names that make up what I term the second class, "Wren," "Chameleon," and "Peruzzi." The last-named has come very near doing something better than his actual achievement. I don't very much like his windows—the big lunettes—divided by trusses. The device, a favourite modern craze, of apparently supporting an arch with mullions, is always a risky one. If one must divide one's arched opening it is, I think, better done by very quiet divisions, such as do not appear to be offering unnecessary assistance, but these massive consoles are an affliction. By the way, the interior view is unduly dwarfed by the lady shopper: she is 8 feet 6 inches high!

"Wren" also suffers from giantesses; in his case they are of stone. They are not bad

in themselves : but, taken in connection with the columns, they produce so great a mass of masonry that the shops, which are, after all, a prime consideration in this competition, appear a kind of afterthought. The author draws well and has produced, to my mind, a very good piece of work, but I don't like his base. It looks particularly lumpy where it stands isolated under the columns of the entrance. "Chameleon" submits a businesslike design which, save for the spandril women who preside over the perspective, is well drawn. His style in detail is not one I like ; but, mercifully, tastes differ.

Now a few words about the three winning designs by Messrs. Gunn, Maw, and Lisle, who have traded under the names of "Clarion," "Dezzezero," and "Last man in." They are all three excellent workmen, and have turned out quite first-class work. Mr. Gunn's perspective is a marvellously delicate piece of pencil work : it is, in fact, too delicate for effect, but this is a small thing to complain of, and I feel that the only real blemish in his design is the exterior aspect of his entrance arch. Those spandrils are very commonplace and seem to emphasise the absence of any strong marking of the arcuation. I should have liked the voussoirs defined by rustication, but if Mr. Gunn felt that such an effect would at such a point have been alien to the French feeling which pervades his composition, he could have gained strength—and such an arch requires visible strength—by merely omitting the spandril treatment altogether. His galleries at each end have been much commented on as successful features in a very good plan. His shops are well arranged : his roof is effective, and I particularly like the well-marked verticality of his street fronts. The drawings are very ably executed in a clever combination of pencil and very fine ink lines. The shadow casting is also good.

Mr. Maw ("Dezzezero") submits a set which for pure beauty of execution runs the winner very close. His delineation of statuary and of colour decoration is most beautiful. Perhaps his general scheme errs on the side of sacrificing too much to effect. The shops themselves are a little subordinated to the very graceful arrangement of his central feature, but the whole scheme is vigorous and is handled with a go and grip that would certainly command respect for the building if ever it were executed. Certain elements of the detail are not quite up to the designer's own mark. I refer especially to the surroundings of some of the painted panels, and perhaps specially to the ungainly enrichments from which the dome ribs spring.

"Last man in" (Mr. Lisle) will not quarrel with me if I describe his work as peaceful. It is one of the best attributes one can apply to architecture, and he has succeeded in keeping out of his design and its execution anything that could possibly ruffle its calm. His front is very stately and he has secured—what is always effective—a shadow behind his main external order by boldly setting back the wall face. His plan is distinctly good, and the whole design is well worthy to rank among the prize-winners of an exceptionally good competition.

THE ARTHUR CATES PRIZE.

For this prize, as for the Owen Jones, there is but one competitor. This is strange : for the competition involves no special work : there are always a number of men eligible for this prize who have only to send to the Institute works which they actually have by them : the prize being awarded on testimonies of study already submitted for the Final Examination. Mr. Leslie Wilkinson, to whom the distinction goes this year, is well deserving of the honour. His interesting studies range from St. James's, Piccadilly, to St. Mark's at Venice, and include two excellent Oxford drawings—one a difficult sketch of the Radcliffe Library, and another of Inigo Jones Court at St. John's College.

THE GRISSELL PRIZE.

In criticising the designs submitted for the Grissell Prize, a little embarrassment is felt lest one should deal with aspects of the competition which are not really vital to the objects

of the prize. A similar embarrassment is, I think, likewise felt by the competitors themselves and by the judges. The prize, as we all know, is offered for encouragement of the study of construction, and the judges have to guard against the danger of the prize going, not to the best constructor, but to the designer of the most attractive building. In this year's case there was no great fear of any such miscarriage of justice, for the designs are unhappily rather deficient in grace. Unhappily, also, they are deficient in constructive ingenuity, "Dies" and "Xopher Gubbins" being the only designers who have made any adequate display of scientific approach to the problems involved. In fact I understand that none of the designs submitted are fully in accord with the intentions of the competitions, but that sooner than withhold the prize the Council have awarded it to the best man in spite of the shortcomings of all. In the absence of any direct indication in the conditions, I conclude that the special constructive problems set to the competitors were the stone roof and the foundations under water. Most competitors very properly took the former to imply a renewed contest with our old friend the stone dome, and, with the exception of the winner, "Gubbins" is the competitor who took the contest most seriously. He has produced a dome which looks rather speculative in its stability, but which he proves by diagram to be stable. He has, moreover, worked out the weights on his piers, and has given the calculations of his arch thrusts—calculations which I do not claim to have checked. His design is gloomy and rather lacks the joyous levity which should characterise a building of this sort; but it is bold and thoughtful.

Of "Dies" I will speak later. "Corbel," whose design hangs next to that of "Xopher Gubbins," shows construction in piles and a dome. The piles are well enough, but the dome is left to chance, or rather, to the forces of Nature. The forces of Nature would, I venture to think, know how to deal with that dome. Side by side there hang two designs bearing the titles of "Architecture" and "Rotten." One of these titles strikes me as unduly ambitious.

There are two designs styled "Rex"—one is an attempt at the dome treatment, but it is poor and gives no proof of constructive knowledge; the other is open to the same criticism, and has, moreover, some very awkward curves in the water wall. "Scarlet Scarab" offers a scheme a little above the average level of the competitors: he has been at pains to show some constructive agility, pinning his faith in the dome to a copper band and in the foundation to invert arches. It is a fair design, but ill drawn. "Isis" has his band in steel, not copper, but I am not sure that he has disposed it in the best position.

"Dies" (Mr. Douglas William Day), to whom the prize has been awarded, has very properly had an eye to royal effect as well as to structural stability. He has in his roof adopted the double-dome construction, and has worked out the stresses and weights with commendable care. Every portion of the jointing of the masonry is most clearly shown, and he has been at pains to make a real study of the problem. His design is simple and pleasing—none the less pleasing for being simple. A building of this kind is meant to give its effect at some distance across the water, and the designer has evidently borne this in mind. But I am not sure about his wilderness of colonnades. He has filled the sheet with them, and implies that they are to run on beyond the paper as far as the Royal Exchequer permits. A sort of Ionic hedgerow! But I think he deserves the prize. He deserved also a better rivalry, and if he had got it he would perhaps have been beaten.

Before sitting down I must add one word to my written discourse. Here and there sentences in my criticism have, I notice, raised a laugh: I would not for the world have it thought either that I have treated this work of criticism as an occasion for levity, or (what would be worse) that there is any unkind ridicule in that laughter. My many visits to the Exhibition Room during the past fortnight have impressed me with so strong a sense of the sterling value of the work there shown, and so great an admiration for the skill and industry to which most

of it is due, that I should feel keen regret if any idle word taken too merrily by a friendly audience were to any criticised competitor a cause of pain.

I have long overtaxed your patience; may I plead that the length of my discourse has been due at least in part to the keenness of the competition? Art is long, and if you multiply its length by 67 it makes life seem, on an evening like this, unduly short for its proper discussion.

VOTE OF THANKS.

MR. J. J. BURNET, A.R.S.A., said it was his privilege to propose a very hearty vote of thanks to the President for his able address, and to Mr. Waterhouse for his more than interesting criticism. He had listened to the President's remarks with intense interest, and he had rarely heard criticism of architectural drawings in which the pill of criticism had been more ably gilded than by Mr. Waterhouse. He longed to be back in his own student days to have his designs criticised with such picturesque and artistic feeling that made one forget the pain of the operation, and really take to heart the lessons so kindly given. Mr. Waterhouse's criticisms were brotherly, scholarly, and artistic, and the students were to be congratulated that there were members of the profession like Mr. Waterhouse willing to give their time to the consideration of the drawings, and to entertain and instruct them in the able and delightful manner Mr. Waterhouse had done. The President spoke from a life of vast experience and culture. Being a water-colourist—and an able water-colourist—the President still took pains to remind them that singleness of aim was the first duty of an architect. Skill in drawing and skill in water-colour painting, he had noticed, often led young architects to forget the seriousness of architecture. There was just one complaint he would make of the student of the present day—he was apt to think, like the students of other arts, that with the finish of college life the battle was done and school ended. With architecture, however, perhaps more than with other crafts, school was only begun. The young architect had to learn to subjugate himself to his client, without whom no architecture could be produced, and until he learned to throw himself with enthusiasm into the wishes and needs of his client, till he had learnt to understand and appreciate the integrity of purpose of the merchant and the integrity of purpose of the manufacturer and the engineer, and to feel an enthusiastic interest in the aims of each, to make them feel that their business was his sole interest for the time being, the young architect would not know what the joy was of being able to raise in stone something that helped others in the strenuous work of their lives. After all, works of architecture were like the headstones of the departed people; they were the headstones from which could be read the integrity of purpose of the age in which we live. Archaeology alone would not help; it was to be studied, but its spirit must be appreciated. It was by attendance to

the immediate needs of our own generation, and by the enthusiasm we felt for the needs of the particular client, that were to come those buildings of real character and beauty and of sufficient novelty to warrant their recognition by future generations as twentieth-century work.

MR. WILLIAM J. LOCKE [H.A.], who rose at the invitation of the President, said he supposed the whirligig of time had brought about its revenge upon him who had so often in that room called upon others at a moment's notice to perform a task which it was now his privilege to attempt. It had been a very great pleasure to him to listen to the President's address, an address so sane, so thorough, and so filled with all that must make for the understanding of what Art really meant. He had also been much impressed by Mr. Waterhouse's sympathetic criticism of the students' works. He congratulated them upon having the opportunity of listening to such addresses. It had always seemed to him, who followed an art, not entirely different, but different in method, that students of architecture and of the graphic arts had an immense advantage over those who merely wrote. If conditions permitted the latter to present their youthful works for the criticism of the leaders of the literary profession, how great a blessing it would be to them. It was only one who had envied the Institute students for many years who could understand the value of such criticism. They could attempt great works, and submit them to the criticism of the highest of the land in their profession. They received from them encouragement of that which was good, criticism of that which was bad. In this way they learnt, and were led on from small things to greater. They did not work in the dark, as the young men of his profession had to do. When the latter brought forward their immature works they had to endure the cruelty of the public press. The Institute students had not to face this ordeal: they had instead the generous encouragement, and, where necessary, the charming, charitable, and loving satire of a critic like Mr. Waterhouse. Mr. Waterhouse had asked them not to put down anything he had said to malice—that, he was sure, they could not possibly do; and he would ask them to thank whatever gods there be that they followed a profession in which such training and such criticism were possible. He thanked the President for his charming address, and had very much pleasure in seconding the vote of thanks.

STUDENTS' STUDIES. By W. CURTIS GREEN, A.R.A.

Read before the Birmingham Architectural Association, 20th November 1908.

TOO many Papers are written without that special knowledge and definiteness of purpose which would render them valuable contributions towards actual architectural performance. In a general way all that there is to be said has been said already, and we know where to turn to for the inspiration of written words. I have no authority to deal with such an important subject as students' studies. I can but call to your attention authoritative utterances on education, and point out the sources at which information may be obtained by the many students who, I think, sincerely desire guidance in their work. No students have more energy or more enthusiasm for work than architectural students, and in no other calling has there been so much misspent, because mis-directed, or rather I should say undirected, labour.

In our work everything depends upon vocation. The truth is, that it is hard to say during the first years what our vocation is: if it is not architecture we had better turn our energies in another direction. I am inclined to say that no test is so certain as whether or not a man remains a student—a state that implies certain responsibilities and a continuity of study not attaching to many professions. Those of you who have not read R. L. Stevenson's essay in *Across the Plains*, entitled "Letter to a Young Gentleman about to embrace the Career of Art," should do so: it goes to the root of the personal architectural problem. The writer implies that the ordinary pleasures and legitimate relaxations of life are more for the engineer, the lawyer, and the banker than for us. Without taking ourselves too seriously, we must regard the usual amenities of life with a watchful eye; learning and exercising our art demands the whole man and brings with it more joys than any individual has a right to expect. This suggests at once that the extraordinary diversity of an architect's calling allows of recreation by turning from one field of activity to another: there is no fear of our overworking ourselves—we may lay that idea on one side. You must allow me to quote the following from Stevenson's essay for our encouragement: "Enough just now if you can look back over a fair interval and see that your chosen art has a little more than held its own among the thronging interests of youth. Time will do the rest, if devotion help it, and soon your every thought will be engrossed with your beloved occupation." And again as a warning: "Nor will the practice of art afford you pleasure only: it affords besides an admirable training. For the artist works entirely upon honour. The public knows little or nothing of those merits in the quest of which you are condemned to spend the bulk of your endeavours. Merits of design, the merit of first-hand energy, the merit of a certain cheap accomplishment which a man of the artist temper easily acquires—these they can recognise and these they can value. But to those more exquisite refinements of proficiency and finish which the artist so ardently desires and so keenly feels, for which (in the vigorous words of Balzac) he must toil 'like a miner in a landslip,' for which day after day he recasts, revises, and rejects, the gross mass of the public must be ever blind. To those last pains, suppose you attain the highest pitch of merit, posterity may possibly do justice."

In our profession there are no short cuts which we can safely take without loss of efficiency: wandering in bye-path meadows leads only to Doubting Castle and Giant Despair. Mr. Millard once said that "a man needs ten years for training and another ten for getting believed in, a man's 'devilling' days: this was about the time it took to turn out an

architect. Even after the usual training and examinations were passed, there was only a further process of examination inevitable and lasting for life—the process of being found out as an architect and as a man.”

Sayings such as these by those who have the right to speak touch us closely, and assist us to decide the question of vocation. Once the student is “engrossed in his beloved occupation” and spending himself for architecture, he is a force to count on. His architectural problem is *the* architectural problem, the problem of an architectural faith or ideal, an active faith with its roots in the past working for the future.

Superficial knowledge and mere cleverness will not fit us for the business of architecture. It may be that owing to an unstable foundation the ever-increasing demands on the business side of our calling endanger, and too often kill, the romantic side: but for the present at any rate, I do not think that we should even hope to see less attention given to the business side—rather let it be more. Architecture has to do with actualities: great architecture has always been active structure, the outcome of knowledge and power. We have to inspire our clients with faith in our abilities and in our estimates. We have to handle the men who work under our direction and to learn from them. I am tempted through bitter experience to say that to fail in the business part of our trust is to fail in all. I do say that to shun or despise it is to misunderstand our calling. Some of us through circumstances are thrust out into active practice too young. I believe nothing is so fatal: it takes years to live down our mistakes, even if we are allowed the opportunity of recovering their effects upon ourselves.

Our art will not suffer by efficiency in the conduct of affairs: on the contrary it will be the fuller, and we shall have gained in character for having mastered something we do not like. It has been said that work is in the first place always something we do not like: with proficiency we grow to like it; there will always be something to master, some obstacles to move; we shall do well to learn to move them for ourselves, and not to rely on others who may at the time seem more fitted to do it for us. It is only when we begin practice that we learn what the work actually is. In the meantime, while we are working for examinations and preparing ourselves in other ways, let us tackle the subjects thoroughly. In a very short time one can once and for all learn such subjects as sanitation and hot water supply, so that when our chance comes these practical questions will present no obstacle to our success. However good a system of education there is at hand, however good an office you may be in, you have to learn these things for yourselves, and find and make opportunities for doing so. You will remember the Elephant's Child in Rudyard Kipling's *Just So Stories* who from insatiable curiosity went thoroughly into the question of what the crocodile had for dinner. He asked a great many questions, the answers to which were so unsatisfying that he went into the question himself with a thoroughness of investigation that astonished everybody, and altered the history of himself, his family, and his descendants.

If I may presume to offer advice, it would be to spend as long as possible working for the architects in whom you believe, and to spend your last penny in prolonging the period before commencing practice, so long as your study is definite in aim and thorough in its investigation. Professor Lethaby once said that it was only after a month's study that we discover some essential fact about a building. “Only by thoroughness of investigation does the thing enter through our thick skins to our hard hearts.”

Every artist and craftsman believes that the present architectural problem and all that it involves is no small part of the social problem of to-day. It is from its nature near to the heart of things. Whether or not we are still too nearly of that period which produced the general decadence of architecture, to rise successfully above the prevailing commercial and social ideals of the day, I do not know. It is something that there are so many talented men at

work at the leavening process, which of necessity must be a tedious one for many generations. No student can survey the present position of English architecture and overlook the Gothic revivalists to whom we are so deeply indebted: their difficulties must have been enormous, and their achievement is in proportion. The revolution they brought about could only have been achieved through a combination of great ability and great enthusiasm. They fought, not for themselves, but for architecture, and for the craftsman they evolved and for whom they obtained recognition.

With the faults naturally attaching to a "revival," in so far as it is an imitation of form rather than of spirit, we are not now concerned. The creative or architect's way of looking at things is so different from archaeological scholarship as exhibited in the less important phases of the revival that we will dismiss these. The "revival" now stands for a return to the ways of a traditional art—an art, in Professor Lethaby's words, "in which each product has a substance and content to which the greatest individual artist cannot hope to attain. It is the result of organic processes of thought and work. A great artist may make a little advance, a poor artist may stand a little behind, but the work, as a whole, is customary, and is shaped by a life experience whose span is centuries." Elsewhere he speaks of an art, "not one man thick, but 10,000 men thick."

It seems to me that the seeds which the Revivalists sowed are growing to that end: a slow growth, yet producing the gems of modern architecture dotted about the country-side and here and there in our city streets. Such fruits as these should restrain us from deeming the men of to-day. Have not members in our profession, and in the building trades, gifts that would have more than sufficed them in any of the great architectural periods? Rather let us look more closely into the means of production.

It we believe that it is the conditions of the time that produce the architecture of the time we have something to go on: looking back we can date pretty exactly the demoralisation of general building, the breaking of traditional architecture to fundamental alterations in the conditions of life and production. The evolution of machinery and the accompanying factory system of production broke the thread of continuity in English architecture. Looking forward we see that imitations of past styles can never be wholly successful, great architecture being a product of the time in which it is built. Our own problem is to produce the best architecture possible under existing conditions: and to forward by every means in our power the possibility of again producing slightly building as a habit rather than as something unusual—samples, as it were, of what could be done if it was customary.

We need constructive thought and criticism during this time, when outside a small circle anarchy in design and anarchy in production prevail. We students want a definite goal and definite leadership. We must be content with nothing short of the best: it is certain that there is talent and disinterested zeal enough in our profession to correct any vagueness of aim or method in arriving at what we want.

There have recently been several authoritative utterances upon our system of education. The first that I shall refer to is that of Mr. Gerald Horsley at the Architectural Association in March last year on "Some Aspects of Training and Design." It is printed in full in *The Builder* of 2nd March 1907. The writer here analyses the excellent work which the Board of Architectural Education have in hand, the work of co-ordination of the principal architectural schools and classes throughout the country, and supplementing in the best way the artistic and practical experience to be gained in an office. The object of the Board is "to start the student on those lines of study which will best enable him to attain to some proficiency in the art and practice of architecture." Mr. Horsley concludes his valuable analysis of the work of the Board with these words:— "If we agree, as I presume that we do, that the

supreme object of our training is to create ideals and aspirations, and foster the growth of ideals in the minds of students, so that the end or goal of their career will be a fine architecture, it seems unfortunate that the Board should lose touch with them just at the time when their aspirations and ideals are taking shape, and ideas begin to flourish. We must surmise that it is the intention of the Board to extend the scope of its recommendations as time goes on." It is greatly to be hoped that this is the case.

Mr. Wm. Dunn has called my attention to a paragraph of the KALENDAR, on page 226, setting forth the scheme of the Board of Education, which is open to criticism. The paragraph runs:—"As the object of training is to educate the student's thinking faculties, it will be necessary to teach him so much of the theoretical basis of construction as will enable him to work out constructional problems. Rudimentary mathematics and applied science should therefore be included, but it is recommended that the course in these subjects be limited to the minimum indispensable for practical purposes."

I venture to think the words "minimum indispensable" need revision. Some of us who have passed the Institute Examination know what the "minimum" for examination purposes is: we are still none too confident when occasion arises for working out the wind stresses on a big roof, the thrust of a dome or arch, the scantling of a concrete lintel or a wooden beam, and we are crippled by the lack of that knowledge. I hope the time will come when these problems of applied science will receive in our education the attention they merit, for these are not the least of the factors of a vital architecture.

Perhaps the most valuable part of Mr. Horsley's paper to the English student is the thorough analysis of the French system of education at the Ecole des Beaux-Arts in Paris. He shows that the French students have a definite goal towards which they work. They have an unbroken tradition, unaffected by the various social revolutions in France, extending over more than two hundred and fifty years. The French School of Architecture, existing at the time when Sir Christopher Wren was at work in London, received the encouragement and support of Louis XIV. and his minister Colbert, of which the Ecole des Beaux-Arts is the result. The French claim that "their great tradition in architecture has never been broken since the days of the Renaissance, and from the great Gothic days when man learnt from men and not from books."

The system produces, as we know, a national architecture of a consistently high level of excellence, and incidentally their students' work is at once our own admiration and our despair. The authorities quoted by Mr. Horsley in his Paper are an article by M. Guadet in the *Architectural Review* of October 1903, and a Paper by the late Secretary of the Institute, Mr. Wm. H. White, published in the TRANSACTIONS R.I.B.A. in 1883. A few of our own eminent architects, and many of those in America, have received their training at the Ecole des Beaux-Arts, and I am glad to know of at least three of our students who are at work there now.

The adoption of the French system of education in this country would be no solution of our own special problem. In certain branches of education we have more to learn from the Germans than from the French; and from what I have seen of Berlin and Vienna, I think some of the magnificent public buildings erected there during the last twenty-five years have more affinity to English than to French genius. The truth would seem to be that architecture can no more be the primitive affair of early days: our knowledge is no longer insular or one learned only through practical experience. The experience of others is not only desirable but necessary for our education, and men who have been trained at the Ecole des Beaux-Arts should have no small hand in shaping the planning and the public architecture of our cities, and helping us in our educational problem.

The most valuable Paper, to my mind, which has recently appeared is that of Professor Lethaby on "Travelling Studies," read before the Architectural Association, and printed in

The Builder of 9th November 1907. His theme is this: "Taking our facilities for study and our present methods of education for granted, how should they best be made not only productive but reproductive?" The student will find his immediate need answered in that Paper, and I venture to suggest that the Board of Architectural Education could use it as a basis for their present deliberations. The headings of the Paper are as follows: "What is required," "As to Sketching," "The true value of Scholarship Studies," "The Institute Prize Subjects," "The Publication of Studies." One direct outcome of this Paper is the formation of a Sub-Committee of the Royal Institute called the Records Committee. Its purpose is to co-ordinate and systematise the work of students on ancient buildings. Through want of system and direction, as you are aware, the measured drawings made by students, however brilliant, are often of little value. Measured drawings, for instance, are repeatedly made of the same buildings of which authentic records already exist: or the buildings chosen are lacking in either architectural or historic interest, or both. It is further hoped that the measured work which a student commences in his Testimonies of Study for the Final Examination may encourage him to proceed with further work on the same building if he decides later to enter for the Measured Drawings Medal, so that continuity of study as well as of record may be preserved. Incidentally, it is hoped to gradually prepare as complete a list as possible of the ancient buildings throughout the country. The manner in which the record of such work shall be preserved has yet to be decided, but it is to be hoped that it will take the form of publication of specially chosen drawings at regular intervals. Your help and that of other Societies allied to the Institute has already been asked for in furthering this work.

At present the best school of design is old work. In the future the study and delineation of ancient buildings such as escape the vandalism of our time may become the work of archaeological research only. At present this field is the one sound and safe school of design and construction. Whatever place the study of ancient buildings may hold in the future, at present they are the best field for the student, and in after life the study of old work is the most fruitful in accomplishment. I believe this may be only temporary, awaiting the re-establishment of a traditional art: by re-establishment I mean the extension of the sphere of influence exerted by the inner circle of men now working on traditional lines.

The making of measured drawings must not be regarded by the student as one of the subjects he has to get through: in conjunction with practical knowledge, the analysis of a fine building, and the making of what should be working drawings from which the building in question could be re-erected, is of the first educative importance. The student is unconsciously forming his taste from the finest material, and absorbing facts as to construction and decorative forms which will never desert him.

It is necessary to soak yourselves in fine architectural examples: to spend your time of study on one building, six weeks, three months, rather than on a dozen towns containing as many great buildings. To imagine that the habit of rushing round with a camera, getting as many photographs as possible in the hope that some day one may be useful, is, I believe, a snare and a delusion. Sketching is only a little better. If we would learn what fine architecture means, we must sit down before it and ascertain for ourselves the simplicity of its structure, the singleness of its aim, the laboriousness of its handwork, and the fancy arising incidentally from it. If we would learn the end of good draughtsmanship, we can learn it in an old building. It has limits of usefulness, and we find them in the study of a great work of art. The baffling factor is apparent in every great work of art, the intangible quality, the result of growth, of life, which no artificial rules or mechanical means can achieve, the creative work of a traditional school of workers doing the work of their day with the materials to hand.

I should like to read to you what Professor Leithaby said in his paper as to sketching:

One of the great heresies of the last fifty years is the sketching mania. I should like to say Draw, but never sketch. Sketching swallows up enormous time, and results in nothing. Men I know who have drawn carefully seem to have more drawings than can be counted, for if they spend a week, or month even, over one study they soon purchase, but the sketcher never gets any forwarder. Drawings stand some chance of surviving, but sketches never. Nor do I believe that drawings should be finished up at home: other matters press and they are put aside. Moreover, they will not work out: we cannot decide whether a dimension should read 76 feet or 96 feet, and one gets disgusted. Drawings finished at home get something unreal into them with every added touch. Everything done on the spot is something struck off between the object and the artist; that which is added at home is all artist.

I believe that this is the advice we need, and I hope it may be followed by more constructive thought upon what we are to do. It is all the more valuable as coming from a consummate draughtsman who in his early days must have succumbed to the temptation which we are to resist. The claims of pen and pencil are partly a matter of temperament and partly of opportunity, and it is a well-known fact that some of the most distinguished architects—and by distinguished I mean distinguished for the accomplishment of fine architecture—seldom set pencil to paper. It was so in the past; the apprentice did not spend his time over the drawing-board: as far as I know, the Orvieto drawings apart, Bramante was the first architect to leave behind what you might call intelligible drawings.

And yet, when all is said, I am sorry for that man who has given up the weakness of a little enthusiastic sketching. Such a one may not have lost the more generous enthusiasms of the student, his choice of place may not be affected by the quality of the hotels, his view of architecture is not necessarily coloured by mundane matters: on the other hand it sometimes is.

Mr. Lethaby's Paper is, I believe, priceless if it will make us think. Instead of muddling through our student days, let us think the position out, read it up, and, if the vocation is ours, live it out: the vision will only come in that way. Our mistress has no use for us half asleep, or half developed, or half somebody else's.

Drawing is a means to an end—for us it is nothing more. Sketching is the recreation of the draughtsman. Never sketch until you can draw; learn to draw the difficult parts and leave the easy ones alone. Go for the essential parts. Begin in the winter evenings on thirteenth-century foliage from the round. Learn the structure of Acanthus foliage as set out by the late Professor Moody in his book *Lectures on Art*; it will never trouble you again. Learn the elements of perspective drawing, so that you may not be at fault. Mr. Raffles Davison has said that there is no building which he could not set out from plans and elevations in a single day. Set yourself the task of drawing a Gothic traceried window, or a circular inlaid pavement, in perspective or elevation freehand: either will test your knowledge.

The final test of all draughtsmanship is that of the human figure: if you can make time for life studies you will never regret it: in the realm of draughtsmanship you will then have entered into your kingdom. I know from experience how cramping is the failure in this last test of eye and hand: the other attributes are essential to mediocre performance, the last is essential to perfection among the noblest subjects.

To those who intend to be good draughtsmen there is no need of warning against the making of pretty sketches. You will be absorbed in arriving at certain facts, showing the structure in its true proportions, the textures of the materials. Your style will take care of itself. Draughtsmanship has at present a great influence upon design, and the modern competition craze a very real, and to my thinking pernicious, influence upon draughtsmanship. The thick line was invented by the Devil in one of his brightest moments; I hope that he will soon have fresh inspiration.

I have now concluded my Paper where perhaps I ought to have begun it, where most students begin their life's work—at the drawing-board. The drawing-board is a wonderfully

attractive thing. We return each day to an old friend: it has perhaps a snug place by the fire: is sanctified by memories of conquests and disappointments: we have leaned on it during hours of elation and despair. We must not regard it as our final sphere of action. It is one means to an end, not the end itself. Just so with our business training, our specifications, our sanitation and plumbing. While acquiring these things some will say we are merely dressing ourselves for the sacrifice. Don't listen to them. Whether or not we are foredoomed to failure is nothing to the point. "Shall life succeed in that it seems to fail?" At least we must enter on life fully equipped: we may not wrap ourselves with any sense of personal security: we must strip for action and get down to the root of the matter, or we shall never withstand the first shocks of dis-illusion in practice with actual clients, with actual builders, or with the actual calls upon our character and courage.

THE BRITISH SCHOOL AT ROME.

Periodical Publication of Students Drawings.

*Published by the British School at Rome.
11th January 1909.*

To the Editor JOURNAL R.I.B.A.—

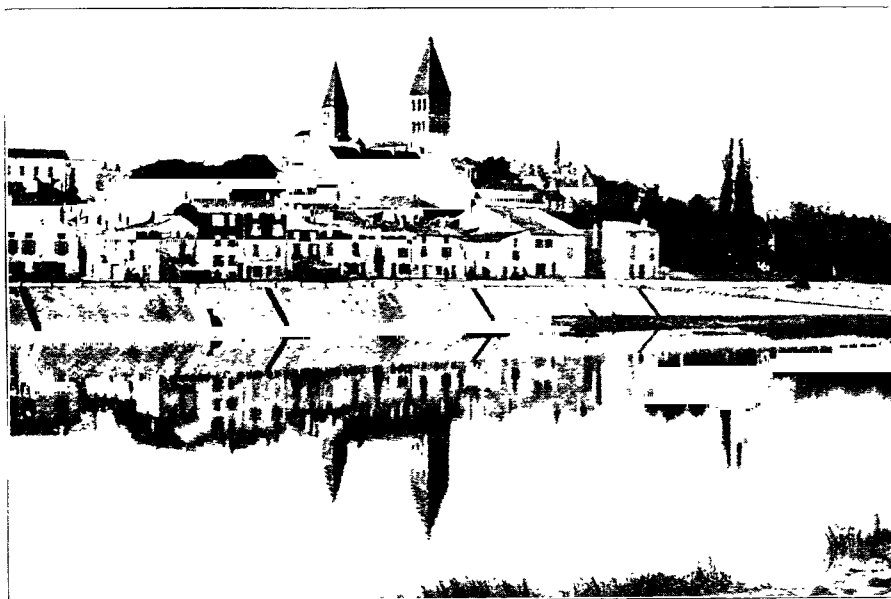
SIR,—The British School at Rome has, ever since its foundation, welcomed architectural students, and a considerable number figure in the list of its Students and Associates. It has, however, been felt to be a pity that much of the excellent work that they have done should remain in their portfolios unknown and unpublished, and this is especially to be regretted inasmuch as their drawings, if collected, might eventually form a most valuable series of illustrations of the principal classical, mediæval, and Renaissance buildings of Rome and Italy. For the two standard works to which the student must turn for architectural drawings of the buildings of Rome, Canina's *Edificii di Roma Antica* and Letarouilly's *Edifices de Rome Moderne* are by no means sufficient for the requirements of the present day. Both of them are over fifty years old, and the former certainly (I cannot speak with first-hand knowledge of the latter) contains many grave inaccuracies and arbitrary restorations, especially in the plans of buildings in the neighbourhood of Rome; the representations of the aqueducts, indeed, are quite untrustworthy. The enterprise of replacing them is, it is true, a large one, and

would require to be undertaken gradually, and it might be well to issue a certain number of small portfolios of drawings before collecting them into a volume, with a title-page and index, so as not to commence with too ambitious a scheme. Some organisation of effort, too, would be required: at present the natural tendency of students is to study the first-rate buildings and to leave alone those of slightly less architectural importance and interest. The inducement to cultivate the study of the latter would, however, be present if they knew that their work would be published and be of definite use and value in the realisation of such a scheme as I have outlined. The exhibition of drawings made by students of the School during the past session, which took place on the occasion of the Annual Meeting of the School at Burlington House in November last, showed that there was no lack of good material available, and the Committee's Report announced that a periodical publication of the drawings is contemplated. Would it not be possible for the Institute of British Architects and the School to join hands for the realisation of this scheme? It would render a real service to students, not only of architecture, but of archaeology and art as well, and would, I think I may confidently say, be an enterprise which, if brought to a successful conclusion, would redound to the credit of British architectural students. I am, Sir, yours faithfully,

THOMAS ASHEY,
Director of the British School at Rome.

SAINT-PHILIBERT DE TOURNUS.

By CLEMENT HEATON (Neuchâtel).



THE ABBEY OF TOURNUS FROM THE SAÔNE. GENERAL VIEW.

THE road from Chalon-sur-Saône passes through a rich and beautiful plain, along the west bank of the slow-moving river, to Tournus, the ancient Roman *Castrum Tinurtium*, which lies thirty-two kilometres NNE. of Mâcon. The abbey church of which one so often hears is built within the space of this camp, at a spot where the mountains west of the plain approach the river, so forming a passage easily defended. This has always been a strategic point, and long before the Romans, the Gauls, and others before them, held it for this reason. When the Roman power had given way, here Burgundians and Franks took once more their stand; while for centuries a heavy traffic went on along the river, whereby the great current of civilisation passed to the north, coming from the east and south, as it had been passing on from the earliest times.

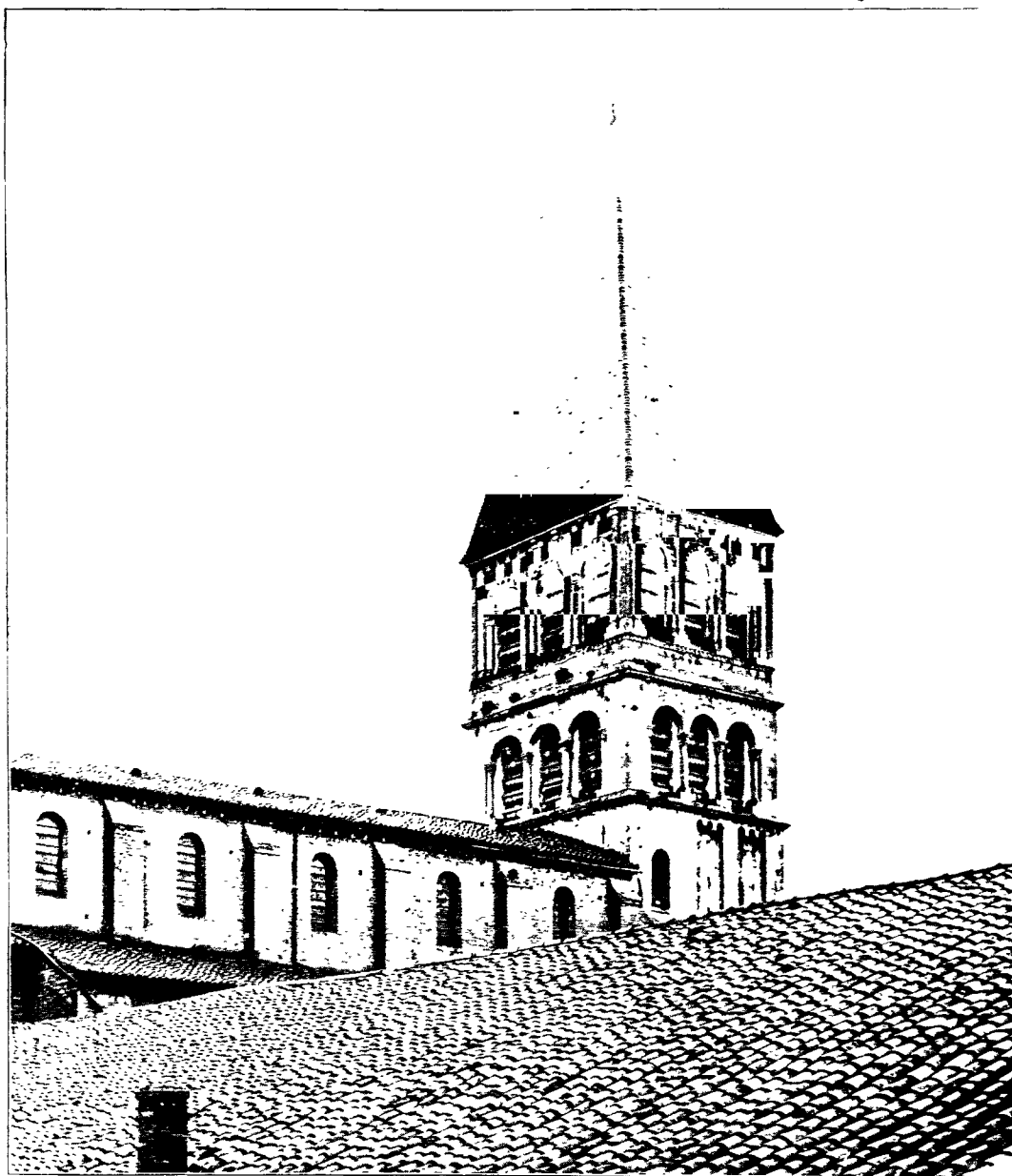
All this is represented before our eyes: we can see, in the little museum, remains of the succeeding stone ages, of the times of the Gauls and Romans, of the Burgundians and the Franks; whole races have passed this way whose eyes have looked on the distant Juras as do ours to-day. We are in one of the highroads of early civilisation.

Here, then, on an eminence governing the road which passed between it and the river, was a camp and fortress, and these became the abbey precinct, which remains to-day with its gate and main lines still in evidence. The abbey church was of course built in its centre, and adjoining the abbey the cloisters remain in a mutilated condition, but complete enough to give a very fair idea of the whole primitive arrangement. In these precincts were found Roman remains, and pillars in the crypt are also Roman, it is said.

There was a church here already in the fifth century, over the tomb of St. Valerian, whose sarcophagus is still in the crypt. It was mentioned by Gregory of Tours, who passed here in the second half of the sixth century; the Venerable Bede and many another celebrated traveller also passed here on their way from the north.

There is therefore a very reasonable cause why such a spot became an abbey. When the monks of Noirmoutier* were chased from their home by

* Near Nantes. Remains of a ninth-century building still show whence they came, it is said. *Moutier* means monastery. Cf. "Romani-Motier," in Switzerland.



THE ABBEY OF TOURNUS—PART OF NAVE AND CENTRAL TOWER, SEEN FROM THE COURTYARD.

hordes of invaders in 836,* they ultimately found refuge here in 875, and remained on. But within less than a century (in 940) other invaders—the Huns—gave them fresh trouble, and burned the town and the abbey of Tournus. The existing

* These were doubtless the Vikings, who commenced to make havoc in France shortly before this time.

building, then, dates even in its oldest parts from the tenth century; and though to us, in comparison with so much of later date, this is a venerable piece of architecture, it is, as will be seen, quite a late appearance in the train of events on this historic spot.

There is, as is so often the case, little documentary evidence available concerning the dates of

the building, but its various additions and reconstructions have been carefully analysed by M. Jean Virey, of Mâcon,* and compared with what can be seen. As this building is one of the landmarks of Romanesque architecture, it will be useful to know what has been ascertained:

It is the Abbot Etienne, Prior after 960, who has the reputation of being the great builder, but in 1006 the church was almost completely destroyed by fire. It was reconstructed by the Abbé Bernier, and consecrated in 1019, as declared by the Chronicle written by the monk Falcon, which ends in 1087. New alterations were made before 1220, when Pope Calixtus II. came over from Cluny, where he was stopping, to again consecrate the building; a fact which seems to have escaped notice.

Provided with these points, an examination of the building has led to the conclusion that the narthex and lower part of the nave must have been preserved from the fire of 1006 as well as the crypt. The narthex must have been built all at one time, the masonry being regularly the same.

* A notice in the work on *Saint-Philibert de Tournus*, par l'Abbé Henri Curié. Picard, Paris, 1905.



NORTH AISLE, INTERIOR OF NARTHEX.



NAVE, LOOKING WEST

The tower at the north side was added by the Abbé Pierre I. (1066-1106). At this side a "Lombard band" of the same work as the west front has been preserved, built in along part of the nave. In the interior of the narthex are to be seen the heavy cylinders with round tunnel vaulting, flanked by tunnel vaults set crosswise. This seems the prototype of the nave vaulting. This work of the tenth century is one of the earliest Romanesque buildings in France, and its wonderful preservation makes it the more valuable as a point of reference.

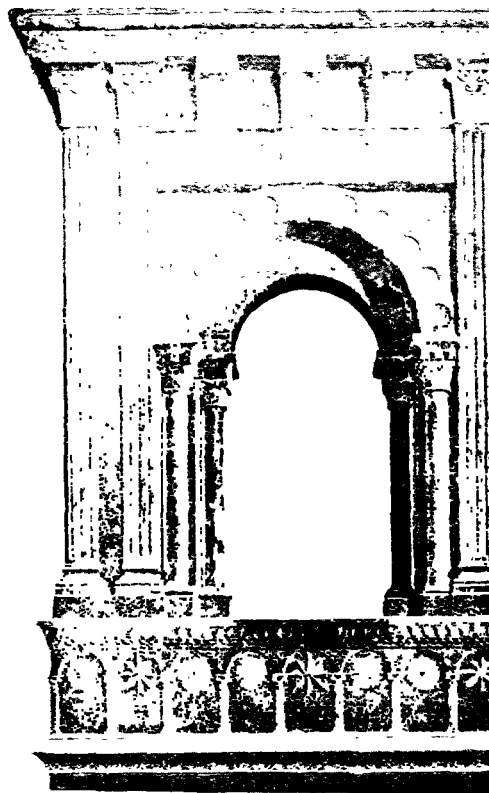
The supposition is that the church of St. Valerian was placed where the crypt now is, and that when, in 940, the Huns destroyed everything, the rebuilding began at the narthex, to enshrine the relics of St. Philibert, which had been brought from Noirmontier.⁶ The building was continued up to the choir, which contained the remains of St. Valerian. Continued by Abbot Hervé, the

There seems to have been much jealousy between the votaries of the rival relics, and the importance of such remains in determining the history of early architecture comes out very clearly here.

building was finished by Abbot Etienne between 960 and 970 by the reconstruction of crypt and choir, some thirty years after its destruction by the Huns. Hence the present crypt would have been lately built when the fire in 1006 destroyed the choir and nave, the narthex escaping. A layer of cinders and other debris was found in the nave, from which it is argued that this part was also burnt. The destroyed parts were soon rebuilt, and the nave roof was finally replaced by vaulting. The upper part of the nave and the choir are judged to be due to Abbot Bernier, preceding the consecration of 1019. All the choir was then built except the crypt walls (built in 970 by Abbot Etienne). The vaults of the nave are due to a more masterly hand, probably that of Abbot Pierre (1063-1107).

The vaulting of the deambulatory would be the work of Abbot Francon de Rouvray before the consecration of 1120.

Returning to the narthex, the upper chapel of St. Michael is supposed to be due to St. Ardain, 1028-1056, judging by the decorations found on the exterior toward the church, now behind the organ. A large window with columns has the



THE CHURCH OF TOURNAI



ST. MICHAEL OF CLUNY

inscription *Gedat is abbas ston. astrol. melle.* But this seems dubious, the whole of the narthex seeming to be of one date, in its lower part.

The community of Tournus was quite independent of Cluny, yet it seems evident that the same style of work exists here as at Cluny and at Autun on the central tower: the principal features in this are the fluted pilaster and the cusped arches.

The interior has often been described, but a point has lately been brought forward which is interesting: viz. that the system of vaulting in the nave is the same as that used by the Sassanide architects and the Byzantines. This and the general aspect of the exterior lead one to suppose that it is no mere local style we have here, but a northern and western example of something older, and more southern and eastern, and the place at which it is found, on the great Saone riverway, justifies the idea.

There are interesting Byzantine capitals in the choir, and in the narthex are well-preserved patches of twelfth-century colour decoration. Part of the cloisters to the south of the nave would seem to be of the tenth century; there are capitals of a most



THE ABBEY OF TOURNAI: WEST END.

Photo. by the author, 1890.

early type, with interlacing work on them, which must be a survival of something earlier than the "Romanesque." Altogether, these buildings are doubtless part of an expansion from the Lombardic centre which had continued so far as this district in the tenth century, for one finds it again at Cluny and Macon, and in other places. We have at Tournus one of the most interesting links with a lost past which the fair land, now France, can offer, and it is to-day a delightful old-world spot wherein to spend a few days. There is a chapel of the tenth century not far off (Saint-Laurent), with herring-bone masonry.

Some two hours' walk from this centre are two village churches of the same type and date as the narthex, at Uchizy and at Farges. Uchizy has a tower with the same ornamental zigzag bands as round on the narthex, and windows of the Lombard type with mid-wall shafts. In the interior one finds high pointed tunnel vaulting over

space pilasters, and no columns, whereas at Farges are round arches over vaults on circular shafts. Both are interesting, but used in small pieces, having the aspect of ruins. There is another church with an octagon tower halfway between Tournus and Macon, to the south of the line, which can be seen from the passing train, but is situated about the country are small churches of early type which are rarely visited.

The study of this group of buildings is complicated, with too many blemishes to furnish a solid starting-point to the history of the architecture of this district. As one remains examining in detail such buildings one comes to the conclusion that the history of architecture is not yet a completed thing. In fact, there seems yet much to be done in the works of collection, so that the mass of information collected by local archaeologists.

29. 2. 1908



CHURCH OF SAINT-MARTIN, TOURNAI, BELGIUM.



9 CONDUIT STREET, LONDON, W. 1. *February*, 1909.

COMPETITIONS.

Stanley Council Offices Competition.

Members of the Royal Institute of British Architects are advised not to take part in the above competition.

By order of the Council.

IAN MACALISTER, *Secretary*.

CHRONICLE.

The Prizes and Studentships 1909.

The Annual Exhibition of the works submitted in competition for the Prizes and Studentships in the gift of the Institute was held in the Gallery of the Alpine Club from the 19th to the 30th ult. inclusive. The visitors' book showed 1,332 signatures, as against some 1,600 last year. The number of competitors was seventy-one, as against sixty-one last year and eighty-seven the previous year. The premiated drawings were hung in the Meeting-room on the occasion of the President's Address to Students and Mr. Waterhouse's Criticism of their work. This is the first year the prize drawings have been collected together for the Students' night, and the innovation was greatly appreciated. The exhibition of work resulting from the tours of the past year's travelling students is reserved for the President's "At Home" on the 8th inst.

Congratulations to the New R.A.'s.

The President took advantage of the General Meeting last Monday to tender publicly the congratulations of the Institute to the two new R.A.'s, Mr. John Belcher and Mr. Goscombe John. It was a pleasure, he said, to offer their congratulations to their old friend and past President, Mr. Belcher, on his elevation to full academical honours. Mr. Goscombe John was one of their sculptor Hon. Associates, and they looked upon him as one of themselves. These well-merited honours would be appreciated, he was sure, by every member of the Institute.

The late James Neale F.R.S. : Bequest to the Institute.

Mr. James Neale, F.S.A., who died on the 18th ult., in his fifty-ninth year, was elected an Associate of the Institute in 1875, and a Fellow in 1890. He won the Pugin Studentship in 1875, and in the following year was awarded the Institute Silver Medal for Measured Drawings. In announcing the decease at the General Meeting last Monday, the Hon. Secretary, Mr. Alexander Graham, F.S.A., said that Mr. Neale would be principally remembered for his splendid and most valuable monograph publication on the Abbey Church of St. Alban, which presents an accurate and complete illustration of the building. Although Mr. Neale had not taken an active part in the work of the Institute, he had been kind enough to remember it in his will. It was therefore a pleasure to announce that, subject to a life interest, Mr. Neale had bequeathed them a sum of £1,000 to be applied to form a Travelling Studentship for the study and measurement of old buildings, or for any other purpose that the Council for the time being might think fit. Mr. Graham concluded by moving that a letter of condolence be forwarded to the relatives of their late Fellow, with an expression of gratitude for his kind remembrance of their interests, and for his beneficent donation.

Donation to the Library from Mrs. Arthur Cates.

Following the above announcement, Mr. Graham drew the attention of members to a numerous collection of handsomely bound books which had been laid on the table for inspection. For these, the Institute was indebted to the kindness of Mrs. Arthur Cates. The donation formed an admirable supplement to the magnificent collection of books left to the Institute some years ago by the late Mr. Arthur Cates. Most of them were hand-books and guide-books, rare and little known, and he strongly recommended students or members going abroad to examine them, for they would find in them information which they would not get from other books in the Library. It was a matter of regret to all that Mr. Arthur Cates's splendid collection should have to be stored in an upper room which was very seldom approached. He hoped that in the near future they would have the whole series, together with the books now presented by Mrs. Arthur Cates, easily accessible in the general Library. One book among these presented he particularly commended to their attention, viz. Racinet's *La Costume Historique*. Many were probably acquainted with this valuable and costly production, which he believed still held its own as the representative work on costume. It was not only excellent as a history, but was remarkable for its splendid plates, the larger number being in colours and gold and silver. He strongly recommended anyone interested in the subject to study the volumes.—On the motion of the Hon. Secretary it was resolved that a letter of

thanks on behalf of the Institute be sent to Mrs. Arthur Cotes for her very kind and interesting donation to the Library.

The New City Hall, Copenhagen

Members visiting the Library should not miss looking through the handsome folio volume, a finely illustrated and very complete monograph of the New City Hall, Copenhagen, which has just been presented by the architect of the building, Mr. Martin Nyrop, of Copenhagen *Hol. Corr. M.*. The text is in Danish, but there is an interesting *résumé* in English at the end. Complete plans and sections are presented in a series of fifteen large plates, and scattered about the text are some three hundred other illustrations showing the building from every possible point of view near and far, details of interior and exterior, sculpture, wood-carving, mural paintings, tapestry, &c. Designs for the building were obtained by means of an open competition, fifteen architects taking part in the first stage, and six being awarded premiums. Mr. Nyrop won the first premium in the second competition, but had to prepare a fresh design. The buildings were begun in 1893, and the whole group, including the Assembly and Banqueting Halls, were finally completed and occupied in 1905. The cost of the work, including the site and the laying out and arrangement of the surroundings, amounted to £375,000. The style of the building in some of its parts recalls North Italian Gothic; others, again, bear the impress of Northern Renaissance. The architect, to quote a Danish critic, has amalgamated his various impressions very successfully, and has produced a building instinct with character and individuality, and responding to the artist's conception of a civic building befitting the Danish capital. The building inclines more to the picturesque than the conventional. Its picturesqueness, however, does not depend upon the effect of wall and tower alone, but is assisted by the collocation of the materials of which it is composed. It is, in fact, the first example in Danish building of a polychromatic effect achieved by the arrangement of materials, and, moreover, is the first great Danish architectural work that, from tower to threshold, has been carried out so as to result in an essentially individual architectonic and decorative unity. The materials employed are red hand-made brick and limestone; carved granite for the plinths, cornices, corbels, &c.; slate, copper, and glass for roofing; copper for the spires, gutters, and for various chased ornamentations. The great tower, the highest in Denmark, is about 350 feet high, and stands upon a foundation of concrete nearly 15 feet thick. An interesting room is the pillared hall, designed as a memorial chamber to the men and women who through their merits or service, have occupied places of honour in the city.

Architectural Education in the United States.

Extracts are given below, as far as space permits, from the Report recently presented to the American Institute of Architects by its Committee on Education —

The committee has already endeavored to improve the training of advanced design by procuring architects in practice associated with different schools. The atelier system has been introduced by Columbia, the only school of architecture which accepts and enforces the scheme in its entirety, while several last year at Pennsylvania has established a school of interior design. Certain desiderata of course for advancement. Credits allowed towards the masters' degree, and to those students taking its work in the United States. At Harvard the work in advanced design, in the training architects has been continued, the architects for the year being Mr. Day and Mr. Chandler.

In its last report the committee urged most vigorously "that the pressing need of education today is not entertainment but extension." It was urged that the standard should be one preparatory year, two years in a school of architecture, or two years of graduate work in Paris, Rome, an American graduate school, or American ateliers, and finally a year of travel and observation undertaken, on lines recommended by a board of advisers to meet the special requirements, or remedy the special deficiencies of the student. Certain definite advances have been made during the last year towards the accomplishment of this end. The school at Harvard has definitely become a graduate school, a degree being necessary to all entering students. As was to be expected, this change has resulted in a decrease in the number of students, with a corresponding increase in ability, among the students are graduates, not only of Harvard, but of Yale, Chicago, and other universities.

A year ago there was every prospect that the Massachusetts Institute of Technology and Cornell would adopt five-year courses in place of four years. At neither place has this reform been accomplished as yet, but at Cornell it is probable that a five-year course will be announced during the current year. At the M. I. T., Professor Chandler has been unable as yet to convince the trustees of the necessity of the change, which is sure, however, to come in time. Meanwhile, both at this school and at Cornell, the entrance requirements are being materially stiffened, which amounts more or less to the same thing, though leaving still undetermined the question of the source from which the student is to gain the preparatory training which may enable him to pass the more stringent examinations.

At Columbia, where the lack of adequate facilities to this end has been felt, the rudiments of architecture have been included in the programme of the Summer School, which students intending to enter the school in the following year will have to attend.

It is evident, therefore, that during the last two years a definite advance has been made towards the extending of the educational period from four to five years. That the American Institute has not been without influence in this matter is indicated by a letter from Professor Chandler of the M. I. T. to the Chairman of the Committee, in which he says:—

"Even if no immediate practical results have been obtained from the meeting of the Committee on Archi-

tectural Education and the heads of those architectural schools invited to meet in consultation, I am sure that this evidence of active interest in these schools by the American Institute has planted good seed. It has served in my own case to make more forceful my regular appeal to the corporation on the president's report to require five years attendance to attain the bachelor's degree. This time I have said that until now our experience alone governed our desires in this matter, but now there have come pressing demands from the architectural profession for a higher standard of graduation, which in fact makes it important to lengthen the course. This same interest on the part of the American Institute for a higher standard of results is also a very effective stimulus to improve methods and to avoid ruts.

All the schools report a raising of entrance standards and a steady increase in the number of students, except at Harvard where, as has been said above, the change to a graduate school has of course meant a temporary falling-off in numbers. At Pennsylvania two-thirds of the States and two foreign countries are represented, while at Columbia inquiries regarding admission have been received from England, Switzerland, and Cuba, indicating that even abroad the advantages of an American training are being recognised as worth striving for.

In the matter of the general broadening of the curriculum until it comes to lay more stress on the humanities and the other arts allied to architecture, which it may be remembered was another of the specific recommendations of the committee in its report for 1907, no information is at hand from any of the schools to indicate that any definite action has been taken in this matter. Believing as it does that such a broadening on the lines of general culture is imperative, and that reforms of this nature may be effected only by iteration and reiteration, the committee again asserts with all earnestness and emphasis that in its opinion "reasonable proficiency in Latin should be made a prerequisite to a degree in architecture; that the study of the history of civilisation and the development of architectural style as expressing the varying modes of this civilisation be given the utmost prominence possible without unduly prejudicing the other branches of education"; and "that calculus, while valuable as a training agency, is by no means indispensable and might well be eliminated in favour of studies that tend more directly towards the development of general culture."

A subject of vast importance before the American Institute of Architects at this session is that of the proposed establishment of a governmental Bureau of the Fine Arts. It need hardly be said that to this committee such an action seems one of the most important in the line of education that could be taken by the Government, and it has therefore its enthusiastic support. To this committee the time seems opportune, therefore, to recur to a principle enunciated in its report to the convention of 1906, namely, the ideal to which we should work, of a Graduate School of Architecture, and the other arts as well, to be established in Washington, and having the closest possible relation to the proposed Bureau of Fine Arts whenever it shall be established.

This committee is unanimous in its recognition of the mastery system of the teaching of design now maintained at Paris, and believes it only voices the convictions of the whole profession in acknowledging the great debt American architects are under to the French Government for the courtesy accorded us in common with other nations of availing ourselves of the privileges of the Ecole des Beaux-Arts. At the same time, the committee repeats what it said in its 1906 report, viz. that "we object to considering our own schools merely as feeders for the School of Fine Arts in Paris." Within the last ten years the position of American students relative to those of other nationalities in Paris has wholly changed; then they were not recognised at the start as possessing any greater dynamic force and professional potentiality than any other nationality; now they are a power, and accepted as such at the start. It is safe to say they are second to none in Paris.

And yet, if the contention of this committee as to the need of broad and general cultural studies in the making of an architect is exact, then the Ecole des Beaux-Arts fails just in as far as it ignores and disregards the value of such humanistic training carried on simultaneously with the study of pure design. To this extent Paris fails of being the perfect and efficient agency we must demand of our Graduate School. The best work done in the actual practice of architecture has been at the hands of Americans who have received their final training in Paris not by the French architects themselves. But while this is true of many, and is a matter of great pride, it is equally true that a far larger number of Beaux-Arts men have fallen by the wayside; not by reason of their indifferent furnishing for the practice of an exacting and exalted profession; not because of defects in the schools from which they graduated to Paris, but simply because, under the system there in vogue, they were not enabled to distinguish between the magnificent underlying principles and the frequently indifferent forms and not impeccable taste through which they were expressed. With no equipment for the applying of taste, weighing of value, and discrimination between essentials and inessential, furnished them through that co-ordinated study of the humanities and the artistic form of this manifestation, these students, left to their own devices except in matters of design taught as a pure science, have been unable to sift the wheat from the tares, and wofully all have demonstrated in practice that the matters that impressed them were less the enduring principles themselves than the very errant form through which they were manifested.

Now, considering the conspicuous ability demonstrated by the body of American students, as a whole, in Paris, and the fact that where failure has afterwards followed, it may with some justice be traced more or less directly to the very quality in the Ecole des Beaux-Arts which is diametrically opposed to the recommendations of this committee, and as well to the general sense of the profession in America, it seems reasonable to urge upon the Institute and its friends the desirability of keeping always before them the ideal of a great and national school at the seat of the Government, where pure design shall be taught not less well than now holds in Paris, and after similar methods, but where those elements of inclusive culture and liberal humanism, on which such stress is laid, may be inculcated in the student, as does not happen to-day in Paris, or in any other school instituted for the advanced training of men

* See article "The Problem of Architectural Education," *JOURNAL I.T.B.A.* 23rd March 1907, where the report referred to is printed.

to fit them to play their due part in one of the greatest of the arts.

Until the end of time every prospective artist in any department of the Fine Arts must go to school for the whole period of his life, to the monuments of past civilisations in Greece, Rome, Italy, France, Spain, Germany, and England, but it is no longer necessary, and it is unnecessary then most unfitting, that we should be compelled to depend for our crowning education on the charity or the friendliness of another contemporary people. Every nation develops its own type of civilisation, solves its own diverse problems after its own native fashion. American civilisation is other than that of France, or Italy, or England, and art, which is the flowering of civilisation, as well as its touchstone, must vary accordingly, however at one it may be at root with the art of all men at all times.

This committee insists that in so upholding the idea of a great central Graduate School of Architecture for the United States, it shall not be charged with any lack of sympathy with the successful efforts now being made by several of the schools towards the teaching of advanced design, nor with any imputation or discrediting or discouraging the graduate courses that have been established. In each report made this committee has strenuously urged the raising of the standard both for admission to the several schools, and for the receiving of a degree in architecture. It would be a matter for congratulation were every school to establish a graduate course, as Harvard has done; but were this end achieved there would still be the same demand, in the opinion of the committee, for a Central Graduate College, to which should come men from the schools in every part of the country to contribute their quota of individuality derived from each school in aid of its desirable diversity, and to acquire from personal contact with other types of men and schools that breadth and liberality of view which is one of the strong claims Paris now puts forth before architectural students.

Mechanical uniformity is the last thing to be desired as between one school and another; Cornell must differ from Harvard, and the Massachusetts Institute of Technology from Columbia, just as the saving strength in the nation lies in the diversity that exists between Virginia and Ohio, Massachusetts and California. And as in the nation the individuality of the States is—theoretically, at least—harmonised and co-ordinated by the Federal Government, so in architecture a great central Graduate School should prove both a clearing-house and a vital inspiration, giving the several graduate schools and courses their true objectives, uniting them in the maintenance of a final school of the highest standards that is neither French, nor English, nor German, but American.

Let us look forward then with eagerness and confidence, let us labour steadily and consistently towards the realisation of this crowning ideal of architectural education in America—the establishing in Washington of a great School of Fine Arts, built on the everlasting foundations of art as it has shown itself at all times and among all peoples, but framed on lines of the broadest and most liberal culture, directed by men of our own blood and speech, and so conducted as to meet the demands of our own racial civilisation, solve our own national problems, making our own successors, in the best and broadest sense, American Architects.

The L.C.C. (General Powers) Bill, Part V.

Referring to the Conference held at the County Hall on the 11th ult., the result of which was reported in the last number of the JOURNAL (p. 216), it should be stated that the Institution of Mechanical Engineers and the British Fire Prevention Committee were represented at the Conference, in addition to the other bodies mentioned.

In the second part of the Chairman's resolution, appended to the report (p. 216), the words "unanimously" should read "unanimously."

Old Bordighera

Mr. Andrew T. Taylor, referring to Mr. Hornblower's letter in the last JOURNAL (p. 219), writes:—"I have to thank Mr. Hornblower for his letter re the word 'salute.' As he says, the error is an obvious one, and was made by the printer of the original photograph, which I must unfortunately omit to notice. . . . My knowledge of Italian is not very profound, but I would suggest that the word should be 'salute,' which has a meaning of safety, and is used, I believe, in that way, and is applicable to the streets behind the protecting outer walls of the town."

PUBLIC ABATTOIRS.

NOTE.—See JOURNAL R.I.B.A., 1908, p. 100.

To the Editor, JOURNAL R.I.B.A.—

SIR: Will you kindly allow me space to answer Mr. Jenne's letter on my Paper read at the Institute on the 18th ult. It is interesting, because he treats almost pedantically with an unpoetic subject, and also because his criticisms are relative to the subject and are, happily, quite unpersuasive.

Mr. Jenne regrets that I did not deal more fully with the interests of those "unfortunate beings who are doomed by the force of circumstances to live and work in them" (public abattoirs). Possibly I did not accentuate that point sufficiently, but in a short Paper on a very large subject it is a little difficult to hold the balance quite equally on all questions. But I had hoped that my reference to "humanity" would have been understood in its broadest sense—humanity to men as well as to animals. These were the fundamental objects of the Model Abattoir Society; they were fully considered when the Chatham abattoir was designed, and I trust they will also be salient points considered in any new abattoir scheme to be carried out in the future.

No person conversant with the subject can gainsay the fact that slaughtering animals for food is, and must be, an unpleasant occupation; but I am strongly of opinion that such work carried out in well-equipped, cleanly, well-lighted and ventilated

buildings tends to reduce the demoralising effect on the slaughterer to a minimum.

I think the moral effect of killing one animal and dressing its carcass in an evil-smelling, disappetising private slaughter-house by men with little experience or training, and furnished with antiquated appliances, to be much worse than the same operations carried out on a dozen animals by experienced men executing similar work under the healthy and sanitary conditions which are found in a well-planned public abattoir, where provision is made not only for the personal comfort of the workmen, but where they are provided with modern killing apparatus.

Mr. Jemmett asks us to imagine a "statue of a butcher killing a pig, a symphony on slaughter, or a sonnet on a slaughter-house"! Really, this is inconceivable, nor have I suggested that the sculptor, musician, or poet should so degrade his art.

But an "abattoir" I know of no word in English which expresses its range comprehends other buildings than the slaughter-house. Even in a small scheme many others are necessary, whilst in a large scheme such buildings as administrative offices, superintendent's residence, buffet, club, bank, exchange, auction mart, live-cattle market, &c., are included. Surely these should and can be made architectural, however simply they may be designed, and need be placed neither underground nor hidden behind a blank brick wall, as Mr. Jemmett suggests. Such an arrangement would be typically English, but, even if practicable, would rather increase than decrease the ill-effects to the nation, to the slaughterers, and to the animals, which I endeavoured to suggest can to a large measure be prevented by the establishment of public abattoirs.

I do not acknowledge that any building designed for and used for a legitimate purpose need be "unfit for publication." Most people passing an abattoir are probably reminded of an unpleasant fact in life, but there is no necessity to accentuate this fact by making the buildings "hideously ugly," or by hiding them behind blank brick walls. Logically, we should also place hospitals for incurables, or children, in a similar position, but surely such buildings are capable of artistic expression.

I am not quite in accord with Mr. Jemmett in his criticism of some Papers read at the R.I.B.A. on special subjects. He deprecates the fact that many readers of such Papers confine themselves to the technicalities of arrangement and requirements, rather than to the question of "characteristic architectural expression." In our work as architects, plan and elevation are such inseparable partners, that it is impossible to dissociate them; and from my knowledge of Mr. Jemmett's work I know that he thoroughly agrees with me. How far the technical and artistic consideration can be combined in one Paper of about forty minutes' duration, so as to accentuate the particular points desired by

every person in the room, I know not. But on this question I will conclude with the words of a well-known Judge, who summed up an important case as follows: "There is much to be said on both sides. Gentlemen of the jury, I leave it to you."—Yours faithfully,

R. STEPHEN AYLING [F].

FONTS AND FONT COVERS.

To the Editor, JOURNAL R.I.B.A.—

SIR.—To the review of the above in your last issue, whilst endorsing the praise, may I add a few words in criticism?

In the first place, it is natural to expect a work with this title to embrace fonts of *all* countries, otherwise some amplification of the title were necessary. As the book is almost entirely made up of British examples, it seems to me that a sub-title, defining the broad title used, is desirable.

Next, one gets heartily tired of the mass of half-tone blocks, and I venture to put in a mild plea for measured drawings. The covers, in particular, would prove of much greater interest if measured. In fact, I would willingly forego some less interesting examples for measured drawings of the covers.

The bibliography would be improved by the sizes of the books being entered, and, I may add, that many fonts occur in the *A.A. Sketch Book*, which does not appear in the list.

Why are modern fonts ignored? From the title of the book, and the complete absence of apology in the Introduction for this omission, they were naturally sought for and not found. Perhaps a further volume may be expected on these. I see "a second volume" is announced on the prospectus (enclosed in my Font book) of *Screens and Galleries in English Churches*.

Finally—for I would like to see this best effort on the subject made more perfect—there is no separate list of illustrations. In the excellent *Index Locorum*, against those illustrated it would be a gain to mark, in addition to the page of the illustration, those measured (*m*) and those photographed (*p*).—Yours faithfully,

PHILIP A. ROBSON [A].

MINUTES. VII.

At the Seventh General Meeting (Ordinary) of the Session 1908-09, held Monday, 1st February 1909, at 8 p.m.—Present: Mr. Ernest George, *President*, in the Chair; 32 Fellows (including 11 members of the Council), 36 Associates (including 2 members of the Council), 3 Hon. Associates, and numerous visitors—the Minutes of the Meeting held Monday, 18th January 1909 (p. 224), were taken as read and signed as correct.

The *President* tendered the congratulations of the Institute to the newly-elected R.A.'s, Mr. John Belcher, *President*, and Mr. Gosecombe John H.A.,

The Hon. Secretary announced the decease of James Neale, F.S.A., *Fellow*, and having mentioned that subject to a late interest Mr. Neale had bequeathed to the Institute the sum of £1,000 to found a Travelling Student-ship for the study and measurement of old buildings, or for any other purpose the Council of the Institute might deem fit, the Meeting resolved that a message of condolence be conveyed to the relatives of the late Fellow, with an expression of gratitude for his beneficent donation.

The Hon. Secretary further announced the presentation to the Library by Mrs. Arthur Cates of a collection of books forming part of the library of her late husband, and it was resolved that a letter of thanks be sent to Mrs. Cates for her valuable donation.

The following candidates for membership, found by the Council to be eligible and qualified according to the Charter and By-laws, were nominated for election—viz. AS-FELLOWS (3): Tom Norman Dinwiddy [A. 1901]; William Roland Howell [A. 1891] (Reading); Richard Willock [A. 1889]. AS ASSOCIATES (44): James Allner [Probationer 1902, Student 1905] (Blandford, Dorset); Horace James Ash, P.A.S.I. [Probationer 1893, Student 1902] (Nuneaton); Alfred Edward Beswick [Probationer 1903, Student 1904] (Swindon, Wilts); James Everett Bownass [Probationer 1904, Student 1906] (Windermere); Ernest Hugh Buckingham [Special Examination] (Norwich); Frederick Thwaites Bush [Probationer 1904, Student 1906]; Edward Smith Coldwell [Probationer 1904, Student 1907]; William Austin Dait [Probationer 1903, Student 1906] (Oxford); Percy Dalton [Probationer 1903, Student 1904] (Southport); Horace Francis Davies, F.S.I. [Special Examination] (Chester); William Dean [Probationer 1905, Student 1907] (St. Leonards-on-Sea); John Leopold Denman [Probationer 1904, Student 1907] (Brighton); Reginald Charles Foster [Probationer 1900, Student 1904]; Harold French [Probationer 1903, Student 1904]; Allan Graham [Special Examination]; Christopher Groves [Probationer 1900, Student 1905] (Newcastle-on-Tyne); Hugh Healey [Probationer 1900, Student 1905] (Rochdale); Thomas Harold Hill [Probationer 1899, Student 1905] (Hale, Cheshire); Thomas Stanley Hosking [Probationer 1904, Student 1906] (Llandrindod Wells); George Edward Hunter [Probationer 1905, Student 1906] (Newcastle-on-Tyne); Sydney Henry Howard Ixer [Probationer 1902, Student 1906]; Harry George Jay [Probationer 1902, Student 1904] (Wellington); William Paul Major [Probationer 1899, Student 1905] (Bristol); Sydney Wilfrid Mobbs [Probationer 1901, Student 1905] (Lowestoft); Charles John Mole [Probationer 1904, Student 1906] (Plymouth); Eric Morley [Probationer 1901, Student 1905] (Bradford); Stacey Arthur Neave [Probationer 1904, Student 1906] (Sydney, N.S.W.); John Thomas Penfold [Probationer 1903, Student 1904]; Francis John Potter [Probationer 1890, Student 1891]; Alan Wilfrid Ruddle [Probationer 1894, Student 1896, Special Examination] (Peterborough); Charles Benjamin Smith [Probationer 1902, Student 1904] (Ipswich); John Burgess Surman [Probationer 1902, Student 1904] (Birmingham); William Sutcliffe [Probationer 1902, Student 1904] (Tadmorden); Basil Hoque Sutton [Probationer 1902, Student 1904] (Reading); Frank Sykes [Probationer 1900, Student 1901] (Manchester); William Joseph Mate Thomasson [Probationer 1899, Student 1905] (Bournemouth); Richard John Tyndall [Probationer 1898, Student 1904]; Robert Newton Vane [Probationer 1907, Student 1907]; James Henry Vaughan [Probationer 1900, Student 1905] (Newport, Mon.); Frank Dorrington Ward [Probationer 1904, Student 1905] (Hastings); Henry George Warren [Probationer 1905, Student 1907]; Thomas Herbert Whittaker [Probationer 1903, Student 1906] (Nottingham); William Hardy Wilson [Probationer 1904, Student 1906]; Ernest Marshall Wood [Probationer 1902, Student 1905] (Cardiff). AS HON. CORRESPONDING MEMBERS (2): Adrien Delpy, Archi-

tect, Archæologist, Lauréat de l'Académie des Beaux-Arts de Bruxelles; Charles Louis Gnault, Government Architect, Membre de l'Institut de France, Officier de la Légion d'Honneur, Paris.

The President announced that the Council proposed to submit to His Majesty the King the name of Dr. Arthur Evans, the distinguished Cretan explorer, as a fit recipient of the Royal Gold Medal for the current year.

The President having delivered an Address to STUDENTS, Mr. Paul Waterhouse, M.A. (Oxon.), followed with a CRITICISM OF THE WORK SUBMITTED FOR THE YEAR'S PRIZES AND STUDENTSHIPS, and a vote of thanks to the President and Mr. Waterhouse, moved by Mr. J. J. Baner, A.R.S.A., F., and seconded by Mr. William J. Locke, H.A., was carried by acclamation.

The Presentation of Prizes was made by the President in accordance with the Deed of Award, p. 214, and the Travelling Students present were introduced as follows:

INSTITUTE SHAWL MEDAL

The Medal and Cheque for £26. 5s. to Mr. Henry H. Hill, B.A.

Cheque for £10. 10s. to Mr. Horace Cubitt.

Certificate of Hon. Mention to Mr. J. Macdonald Ross.

INSTITUTE MEASURED DRAWINGS MEDAL

The Medal and cheque for £10. 10s. to Mr. Ernest W. Wray.

Certificate of Hon. Mention and books value £5. to Mr. Alan G. Brace.

SCOTT MEDALLION AND £100.

Mr. Anthony R. Baker introduced as the Medalist of the year and presented with the Medallion.

Certificate of Hon. Mention and cheque for £21. to Mr. Adrian Berrington.

OWEN JONES STUDENTSHIP

Cheque for £21. to Mr. S. Herbert Maw represented by Mr. Rex Monk.

PUGIN STUDENTSHIP

Mr. S. H. Miller (not in attendance) announced as the Pugin Student of the year.

Certificate of Hon. Mention and cheque for £10. 10s. to Mr. H. Hubert Fraser.

GODWIN BURSARY

Mr. J. A. O. Allan (not in attendance) announced as the Bursar for the year.

TITE CERTIFICATE

Mr. Richard M. M. Gunn (not in attendance) announced as the Tite prizeman and entitled to the Certificate.

Cheque for £15. 15s. to Mr. B. F. Lisle.

Cheque for £10. 10s. to Mr. S. Herbert Maw represented by Mr. Monk.

ARTHUR CATES PRIZE

Cheque for £42. to Mr. Leslie Wilkinson.

GRESSILL GOLD MEDAL

Gold Medal and cheque for £10. 10s. to Mr. Douglas William Day.

ASHPILL PRIZE

Books value £40 presented to Mr. Horace James Ash.

OWEN JONES STUDENT 1907

Cheque for £50. to Mr. Arthur R. H. Jackson, *Owen Jones Student 1907* represented by Mr. Pagen.

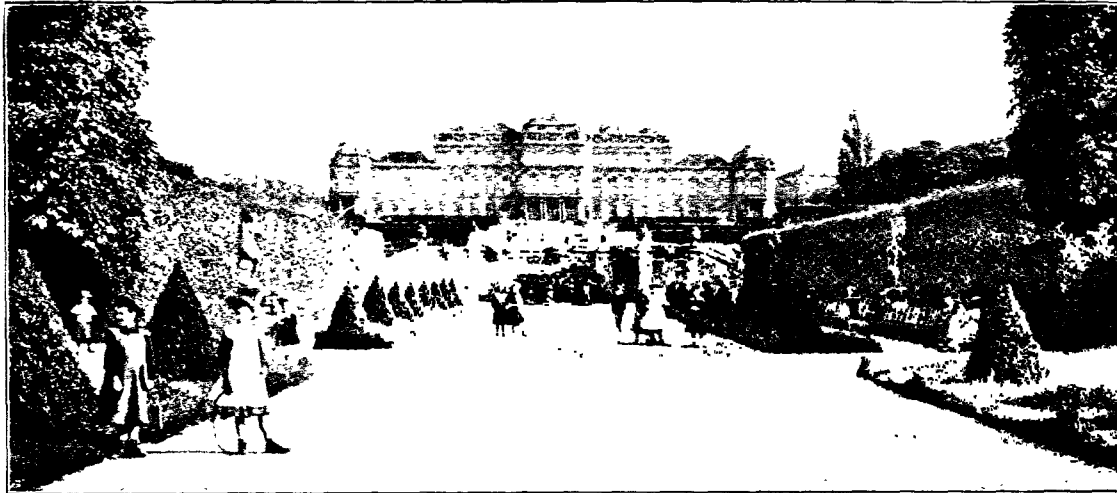
TITE PRIZEMAN 1907

Cheque for £20. to Mr. G. Salway Nicol, *Tite Prizeman 1907*.

PUGIN STUDENT 1908

Medal and cheque for £40. to Mr. Sydney G. Toller, *Pugin Student 1908*.

The proceedings then closed and the Meeting separated at 9.40.



UPPER BELVEDERE, VIENNA.

TOWN AND COUNTRY: SOME ASPECTS OF TOWN PLANNING.

By H. V. LANCHESTER [F].

Read before the Royal Institute of British Architects, Monday, 15th February 1909.

THE selection of the title "Town and Country" for the Paper you have so kindly invited me to read here to-night is due to my conviction that we, as a nation, regard their relationship to each other as the most important factor in town planning. It is hardly necessary to hint that the average educated Englishman values the country far above the town, regarding the latter as a necessary evil, to be tolerated only on account of its uses in making a living or for certain specialised and concentrated forms of amusement to be indulged in with moderation and within certain definite limits of time.

This attitude is an hereditary one. Tacitus tells us that our progenitors the Saxons called the city "the grave of freedom," and this race when they took possession of our island destroyed the Roman towns and settled in small hamlets. This preference induces a neglect of the city in respect of anything beyond speedy and convenient means of intercommunication and of transit: and if these demands are fairly well met our typical Englishman is satisfied, not possessing sufficient imagination to realise the requirements of those whose lives are necessarily spent within the town or immediate suburbs.

The activity of societies having for their object the preservation of those areas of our country possessing claims to special beauty or interest is sufficient proof of the strong national feeling on the question. As the result of this feeling, the importance of ordered dignity and grace in our towns has never been felt here as on the Continent, where the city has always taken first place in the minds of all classes.

Not only in England has municipal advance taken place mainly along the lines referred to; H. A. Barker, of the United States of America, writes as follows:--

Suddenly there swept over the country a marvellous movement for the extension and acquirement of parks. The wave had been slow in gathering, but it spread to the remotest hamlet, and every town set about to have its pleasure ground. It was a delightful surprise to the park enthusiasts when they woke to the fact that their well-worn arguments had grown trite and accepted principles in the municipal economy, believed in alike by

the man in the street, the legislator, and the member of the commercial club. What combination of causes brought this about matters little. The trolley and the bicycle had given to the public a realisation of rich delights beyond the rows of houses and the gloomy factory walls. To throngs who had never known, or had forgotten, how to live there came the chance for occasional journeyings and glimpses into a world of new delights, which they naturally longed to bring nearer to their homes.

It is characteristic that such efforts as we have made toward the amelioration of town life have been rather in the direction of importing little scraps of the country into the town than in any studied method of expressing the city as such. Since the seventeenth century, when our principles were based on those of the Continent, we have step by step diverged from the idea of decorating our towns towards that of disguising them here and there by imaginary scenes from the countryside.

This is the basis of landscape gardening in our parks. You are doubtless aware that the lake in St. James's Park was, some century back, an oblong pond with lines of trees on each side. Whether the present form is an improvement or not it is difficult to say. I mention this merely as an instance of the trend of our taste in these matters.

The squares of Bloomsbury and the West End naturally retained the traditional regularity of outline; but even when these were laid out more freedom was allowed in the planting, and modifications since have resulted in an almost complete abandonment of formality. I hold no brief for or against this, as I feel that where the lines of the square and its surrounding buildings are firmly drawn absolute formality may become oppressive and that well-balanced groups of good trees may be more satisfactory. As a rule, though, one's instinct tells one that some degree of symmetry is needed in all garden work to be seen in conjunction with buildings.

I am inclined to think that in the case of town gardens the less dominant the surrounding buildings, the more necessary is a definite formality of plan. Kensington Gardens are but little influenced by the adjacent streets and owe their dignity almost entirely to the geometrical lines of the plan, so well suited to the masses and forms of their magnificent elm trees. How favourably in this respect do they compare with most of our other parks where the trees are planted in haphazard groups.

I am not going to flog a dead horse by indulging in a tirade against the landscape gardener, but will return at once to the main point, which may be briefly restated as follows:

Valuing the country as we do, we can only consider our towns in their relation to their surroundings, and we shall as a nation devote more attention to this relationship than to the actual embellishment of the city itself. This axiom may not be endorsed by the architect: it requires, indeed, some effort to accept it; but I feel it is by this route that the first advance will be made, and that if we as a profession accept it we shall not be prevented from making headway also in the other matters we have at heart.

We have many of us realised the superiority of the Continental peoples in the "grand manner" in city design, and have felt the hopelessness of enlisting the general public in any attempt to emulate them in such a direction. Now here is something in which the sympathies of the nation are already enlisted, and if we as architects can show that we are, as we ought to be, reliable advisers, our views will be received with greater respect and confidence when we proceed to such details of town design as are more subtle and therefore less easy to understand without technical training.

The deplorable character of the average suburb is now so clearly comprehended by all who have devoted the slightest thought to this question that any remedy or amelioration offering itself will be eagerly studied. At present the central areas of our larger towns, though far from being what we should desire, do afford a certain degree of satisfaction by reason of

the dignity of the buildings that have in the course of centuries accumulated there, and by reason of the ordered efficiency of the important modern structures they contain; but as we pass outward this satisfaction is replaced by dismal discontent, culminating when we reach that no-man's land where the country is being wrecked and broken up to give place to monotonous ranges of inanely designed and badly built houses, the shums of the future.

For the improvement of our towns the first thing to be demanded is the provision of worthy routes connecting the centre with the open country. The development of the tramways is resulting in a continually increasing proportion of the population being brought to their daily work by this means, and if the routes are finely planned and studied with a view to their artistic effect they will in themselves exercise an educational influence on all who use them. As I shall return to this more in detail later on, I will content myself at this stage with raising a few points as to the proportions of streets and their buildings. We of course recognise that a long and important street, particularly if straight, demands an effect of breadth in one form or another; but our present regulations indicate that we are far from appreciating what is a satisfactory relationship between the breadth of a street and the height of its buildings.

I have examined a number of thoroughfares that either fail or succeed in satisfying one's æsthetic instincts, with the result that I believe it is possible to lay down the following rough-and-ready rule. The height of the buildings should not exceed two-thirds of the width between them, unless it is at least one

and a half times this width [see fig. 1]. Any proportion between these is unsatisfactory, though less so in the case of irregular streets and with buildings having broken sky-lines. Now the narrow proportion is unsuited to residential districts, and therefore the former one should be the limit; but in closely built commercial areas there will doubtless be many streets of the narrower type, though in our climate it would be well to avoid them on an alignment east and west. If such a narrow street exist every effort should be made to open it up to the sun on the south side by recessing frontages and reducing heights of buildings at certain points.

A number of other questions in street planning, such as the treatment of angles and bends, the provision of terminal features, and the access to squares and open spaces, must be excluded from consideration, as these alone would form ample material for an evening's discussion. Even as it is, the ramifications of such a large subject inevitably lead one along some of the

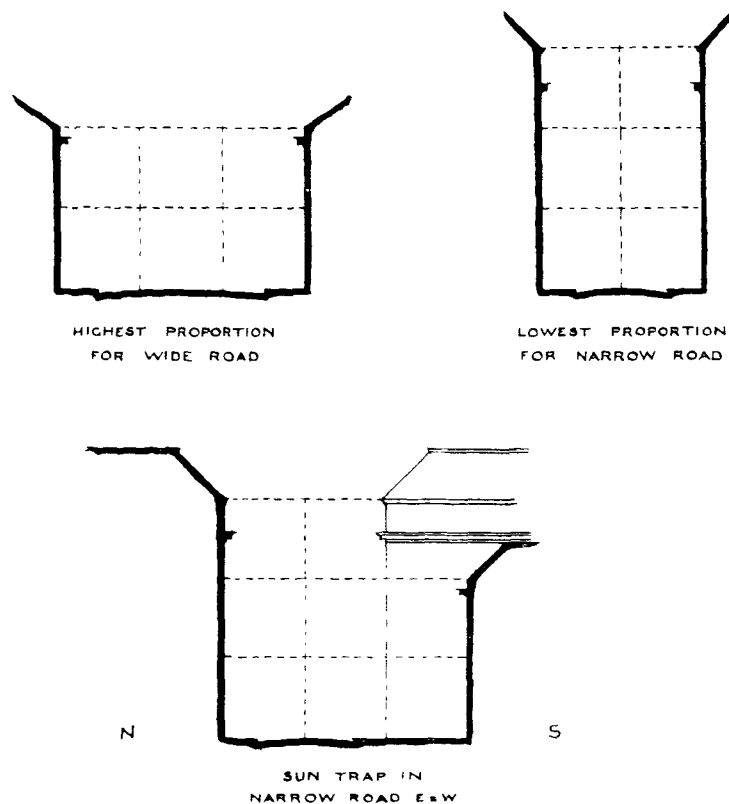


FIG. 1.—STREET PROPORTIONS.

by-paths to a point a little outside the limits laid down at the outset, and I must ask your indulgence if we occasionally touch on a side issue.

In order, however, to avoid this as far as possible, and to treat the question in an orderly and definite manner, I propose to ask you to transport yourselves a short distance into the future, and to regard as materialised some of the aims and aspirations that are engaging our attention at the present time.

Let us in imagination start out some ten years hence from the business centre of one of our larger provincial cities, passing in turn the buildings devoted to government, to recreation, to education, and to various types of residence, till we arrive at the outermost limits. By way of giving a realistic atmosphere to our description, let us imagine that we have allotted a June afternoon to showing the more modern aspects of the city to a colonial cousin who has not been home for twenty years. We drop down the lift from our office about three o'clock, and emerge into one of the narrower streets. No very great difference is noticeable in these, except that within the business centres they are entirely given up to pedestrians, no vehicles being permitted there between the hours of 8 A.M. and 8 P.M.; while in the wider streets only light cabs are allowed, the large and heavy vehicles of the public service being confined to a few main arteries, and no goods traffic at all is to be seen at this time except light vans that are certified equal to a pace of ten miles per hour.

Before starting on our route towards the south-west we will take a few steps eastward to look at one or two of the great warehouses. Some eight years back (in the year 1910 I believe) the congestion in this area compelled our municipality to appoint a traffic commission, which reported that to remedy adequately the existing state of things new thoroughfares were needed at an estimated cost of nearly four millions: fortunately, before any practical steps were taken, the Chamber of Commerce sent a committee of investigation to Chicago, and then, bringing all the traders into a syndicate, extended the terminal of the great main line to the East coast docks, by means of radiating tubes in reinforced concrete some forty feet deep, which communicate with every warehouse in this section by means of lifts. The city contributed two and a half millions to the scheme, holding bonds to this value, and the economies effected have resulted in a great expansion in the trade of the town. The old streets have proved adequate to the retail business, but it is enacted that in ten years' time each owner will have to provide standing room on his own premises for vans loading and unloading.

As you will have an opportunity of studying the details of this arrangement another day, we will turn our steps towards the south-west, this being the shortest route to the collecting road that encircles the business area. When starting the improvements it was felt that such a road was desirable, and it was carried through the districts just going out of use for residential purposes. As you see, it has been almost entirely taken up by shops and hotels, while there are also three theatres facing into it. Considerations of cost did not admit of this street being expanded into a boulevard, but fortunately two large squares are in close proximity, and they are linked up to it by broad avenues. At the point where we reach this zone a space has been cleared for the municipal group; this was formerly the site of the workhouse, with the addition of two acres from the churchyard of the Georgian church you can just see standing back between the town hall and the law courts.

You have doubtless been disappointed hitherto at not having seen more study of decorative effect in our streets, but it was considered that the stress and rush of business detracts from the likelihood of a proper appreciation of such embellishments. In this square, however, you will realise that we have not been neglectful of our monuments and their setting; the rise in the ground has enabled us to place the city hall on a podium carrying several important groups of sculpture that complete the scheme of the sculpture on the building itself. The

advisory committee of architects has always recommended that all monuments should be so placed as to be seen only against a suitable background, and that if possible they should form part of the composition of a building or group of buildings; for example, you see the memorial museum in course of erection between the square and the little public garden to the north. The centre bay of the loggia will frame in a statue, of which portion of the façade I can show you a sketch [fig. 2].

You say you thought we already had a fine museum: quite true, it is now attached to the university group; but this one is provided by a recent mayor for the express purpose of illustrating municipal history, work, and progress, somewhat on the lines of the Carnavalet Museum in Paris. The collection is at present housed in the town hall, and it would be worth while to spend ten minutes in the room devoted to the foreign tour of our town commission before the present improvement scheme was put in hand. This commission divided itself into three sections: one collecting data as to the character and placing of the public buildings and monuments, the design of the open spaces, and more generally with the more definitely architectural side of the subject: while the second took in hand the matter of town extension and surroundings; and the third the sociological aspects of the question. We shall see in due course the work of these latter, so we may for the present content ourselves with a brief



FIG. 2.—FROM A DESIGN BY PROFESSOR BELLSHOP, 1881.

review of the methods of the first section in their study of the principal cities of the Continent.

As it would be out of the question to go over all the ground they covered, we will limit ourselves for the present to that portion of their studies bearing on the problem of our city square. I will point out three examples of the closing in of the public place so strongly advocated by Camillo Sitte. The first, from Nancy, shows the buildings connected by semicircular loggia [fig. 3]; in the second (the Plaza de Commercio at Lisbon) they are skilfully linked up by a

triumphal arch [fig. 4]; while in the third the desired effect is produced by the closing of a short vista with a building designed in harmony with those fronting on the *place* [fig. 5]. This last has the advantage of being both more subtle and more practical than the other two, though, of course, there is room for the adoption of any of these three solutions, not to speak of a fourth in which the planting and massing of trees would take an important part.

Passing on from the lines of the square to its decoration, we may notice a few views of sculptured monuments and fountains particularly well studied with regard to their surround-

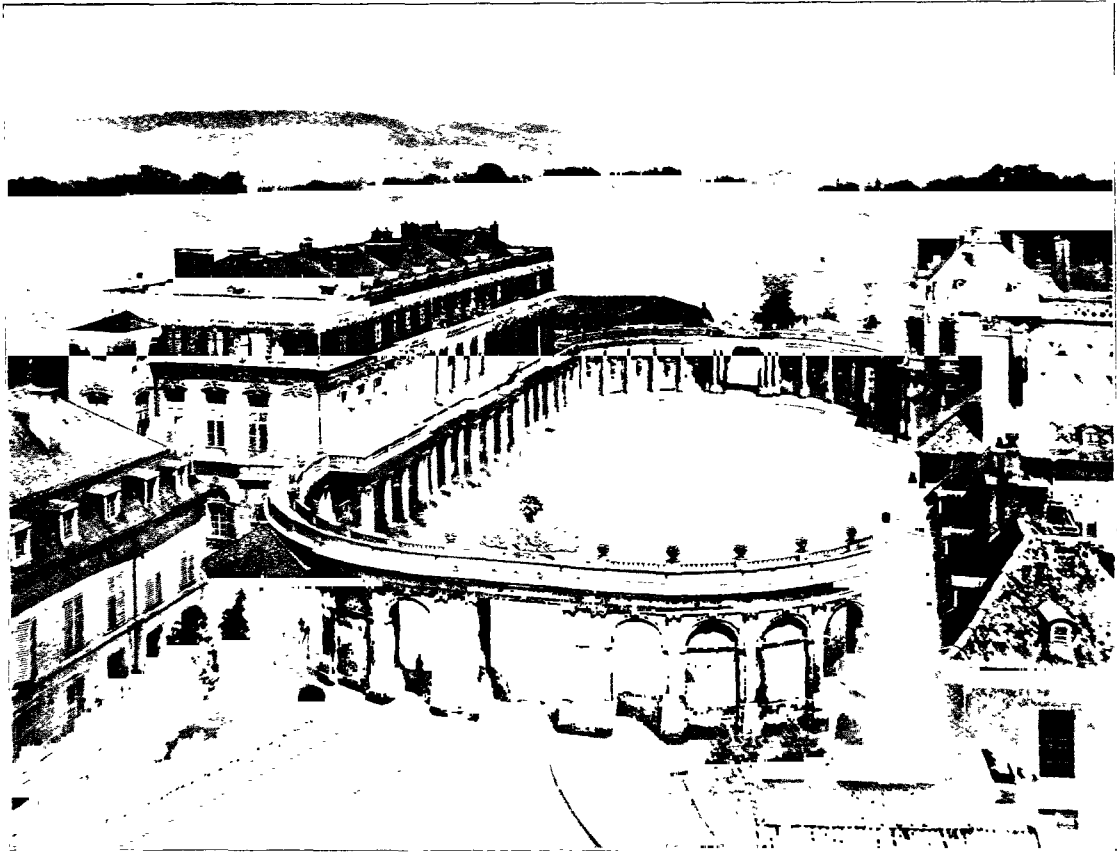


FIG. 5.—HÉMICYLE AT NANCY.

ings. From these we may turn our attention to sculpture treated in direct relationship to an architectural composition.

This committee's report evoked a remarkable enthusiasm in the city, and the inclusion of some references to the methods of the Romans at the zenith of their power induced a number of our leading citizens to contribute substantial sums towards civic embellishments and improvement; an equal sum was raised by means of a special rate, and thus we were enabled to carry out a large proportion of the work you now see.

It is time we continued our route towards the outer suburbs, but we have yet to pass through a zone mainly occupied by residential hotels and the better class of tenement blocks, inhabited by those whose disposition or whose employment leads them to prefer this type of dwelling. These have mostly been built during the last fifteen years, and we were enabled to

put in force by-laws regulating the cubic amount of building that might be put on a given area, and thus secure good gardens and open spaces between the six- and seven- story blocks. Though the gardens are not all public property it has been found convenient to place them in the charge of the municipality.

The inevitable tendency towards segregation has resulted in a certain amount of class grouping in this zone, but there are fortunately no hard-and-fast lines, and the districts mainly inhabited by the working-classes differ but little in general appearance from those in this

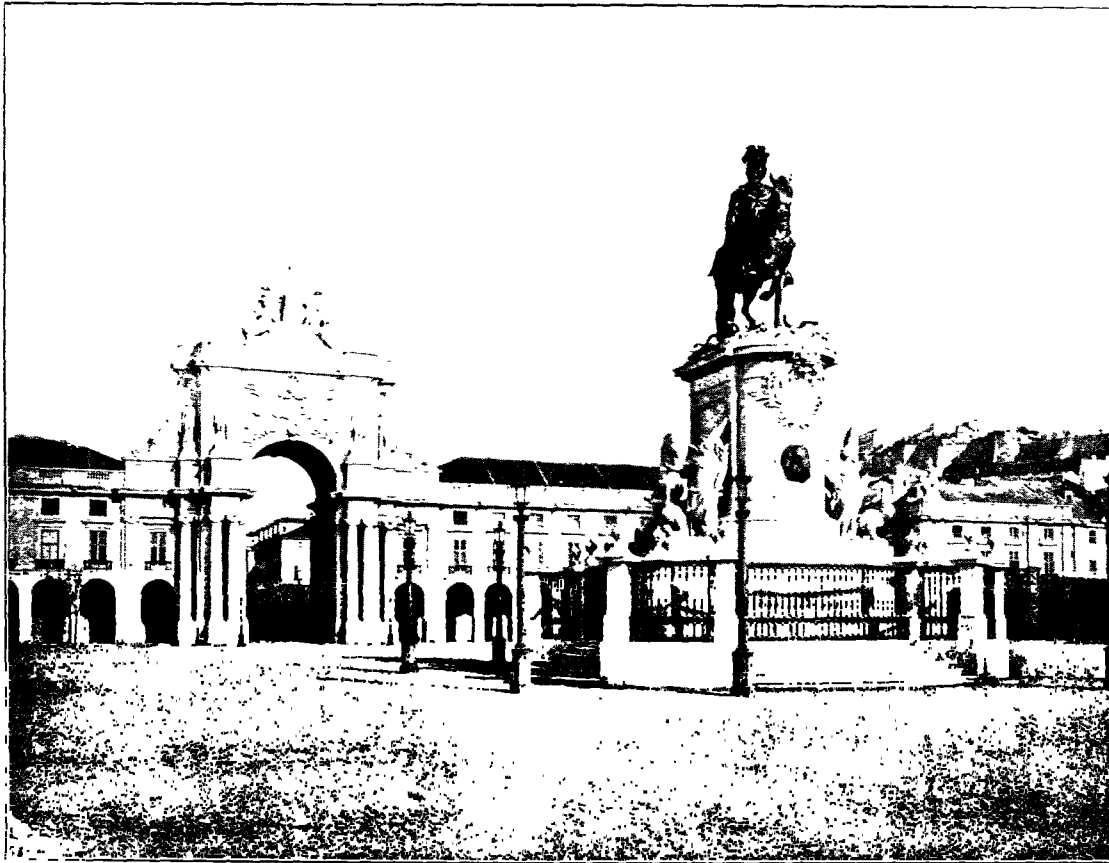


FIG. 4.—PLAZA DE COMMERCIO, LISBON.

section. The buildings are simpler in design, and a larger proportion of the open spaces is laid out as playground, but in other respects there is no perceptible difference.

A few hundred yards further we reach one of our most important undertakings—the great water avenue. You will remember our river, a turbid and tortuous little stream, of which by no stretch of the imagination could one be proud. Here it came within a hundred yards of the main road, and then burrowed away under the railway goods yard to the north-west, returning again under the line about a mile further on, just where the open country used to begin. This long loop was hopeless—in addition to two tunnels under the railway, there were three or four factories, the appearance of which destroyed all chance of doing anything with it; at the same time it was felt that it would be a fine thing to make a river a feature in the design of the city and to provide a convenient location for water sports. As there was but a strip of

less than a hundred yards between the main road and railway a landscape treatment was obviously unsuitable and the straight canal almost suggested itself.

At the city end a circle a hundred and fifty feet in diameter is surrounded by a raised terrace formed by the boathouses &c., with a terminal and two flanking monuments [fig. 6]: from this there is an uninterrupted stretch of over three-quarters of a mile with two bridges, and then a wider basin surrounded by an embankment terraced to give a view of the finish of races and of the water sports usually held here [fig. 7]. On either side is a double avenue, and beyond this lies on the one hand the thickly planted mound screening the railway, and on the other a narrow garden abutting on the main road. Fig. 8 shows what may be done with a

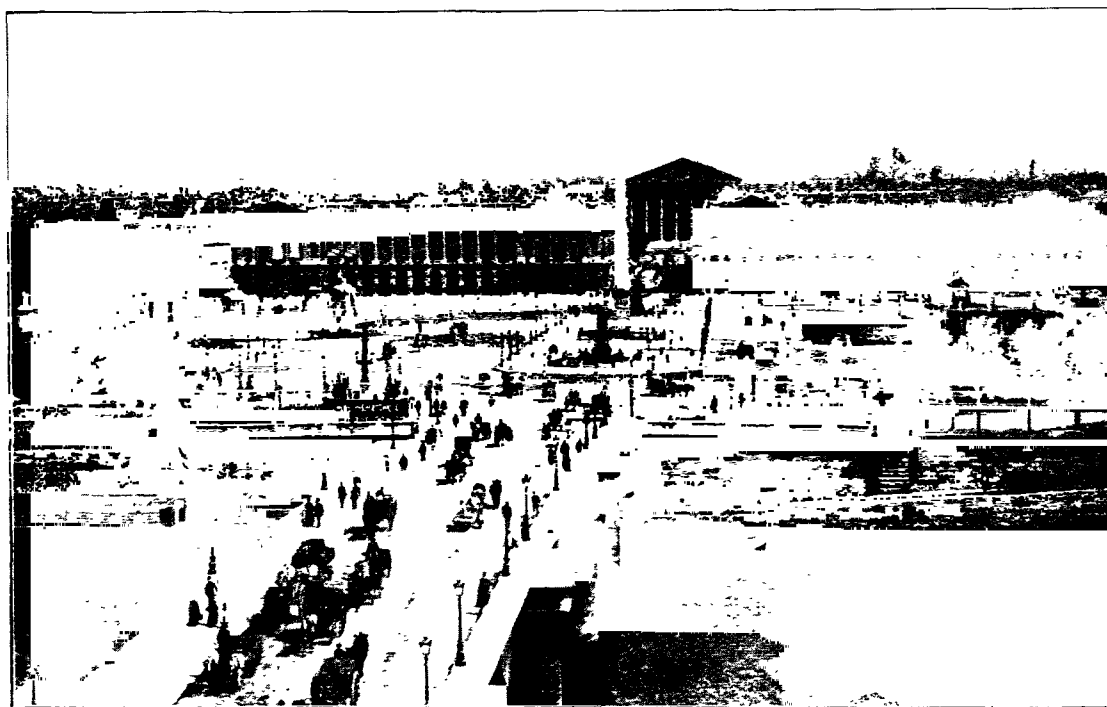


FIG. 5.—PLAN OF LA CONCORDE, SHOWING AVENUE CLOSED BY THE MARITIME

garden of this character. The straightening of the road formed part of the scheme, and this giving a series of irregular strips on the other side, the readjustments afforded the opportunity of providing an enclosed garden which helps to balance the effect of the water avenue on the opposite side of the road. This garden is gradually being ornamented with monuments illustrating the principal events in the history of the city [fig. 9, p. 268].

The other main avenues out of the town are very varied in their character: more than half are the old highways that were in many places far too narrow for the traffic that streamed through them. We began by widening these, but it was a terribly costly business, not only in the value of properties taken, but also in the disturbance of interests in those untouched. Tradesmen complained bitterly that when the whole of the opposite side of the street was swept away, and for the succeeding two or three years long stretches of hoarding took the place of brightly lit shops, the street lost ground and took years to recover its popularity. To avoid this we tried the experiment of picking out a series of parallel but unimportant streets and

linking them up into a supplementary thoroughfare connected at frequent intervals by cross-roads and arcades with the main one, and with a few open gardens between in order to

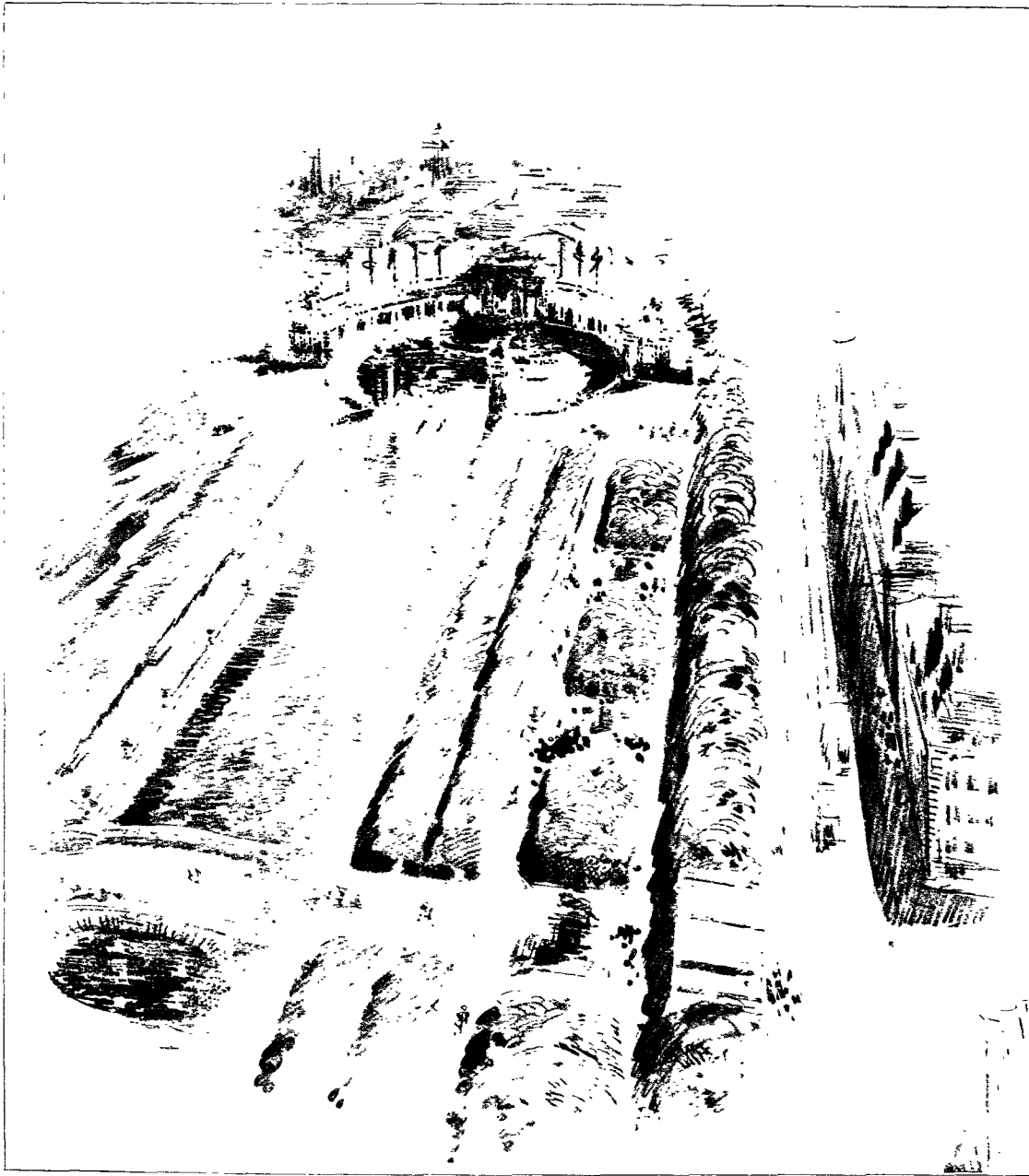


FIG. 6.—CITY END OF WATER AVENUE

L. J. P. 1918-19

emphasise the connection. The success of this scheme appeared for some time to hang in the balance, as the traffic held to the old road and ignored the new, until the resolution to bring trams along this route forced us to allot one line to incoming and the other to outgoing vehicles. This at once advertised the new street, and it is now almost as popular as the old one. To

P. P.

indicate in a compact form what may be done in this way I can show you a plan prepared for Bond Street as an illustration of my meaning [fig. 10, p. 269].

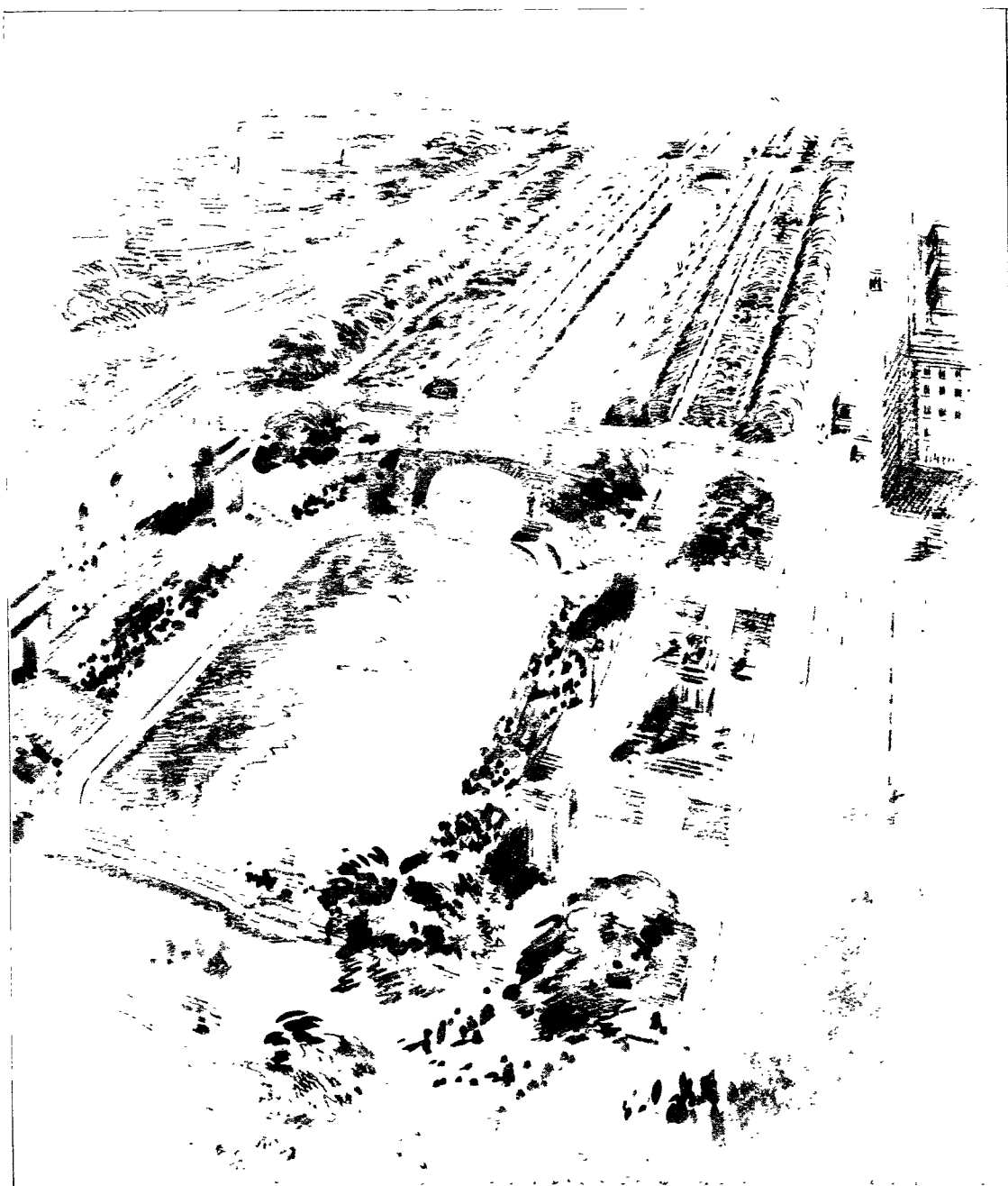


FIG. 7.—WATER ARENA

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Most proposals for the relief of traffic in a congested street have been made without taking into account the fact that the bulk of the traffic (at all events allowing for standing vehicles, the traffic occupying the larger proportion of the area) is due in most cases to the business and

the popularity of the street itself, and that any alternative route will, possibly for some decades to come, only divert a portion of the through traffic.

The conclusions of the London Traffic Commission were found to be vitiated by neglect of this consideration, and as a result several important improvements have failed to produce the result anticipated. We now attach great importance to this method of duplicate streets with single-way traffic as a remedy for overworked routes. Of course we do not regard these as show streets, though their curving lines and frequent irregularities give a certain charm, and the preservation of the character of the old highway counts for something.

You ought to see one or two of the new routes that have been added to our system of

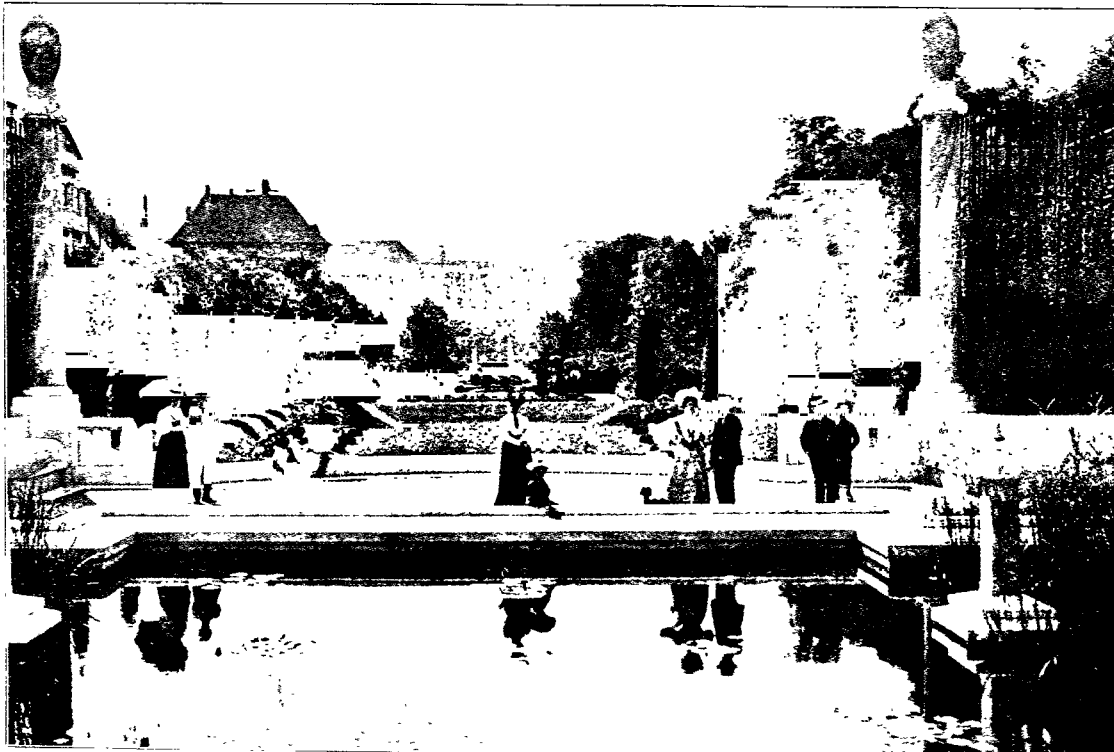


FIG. 8.—AVENUE IN THE VOLKSGARTEN, VIENNA

radial thoroughfares. they are not as uniformly wide as the standard adopted in some other cities, and have not the continuous avenue of trees so often demanded: our earlier experiments proved that trees so placed had a miserable struggle for existence, and compared most unfavourably with those massed together in the squares and gardens. The merits of Hénard's *boulevard à redans* were discussed, but the effect of this was felt to be monotonous, and the small recessed courtyards are of less utility here than they would be on the Continent. While the general width does not exceed seventy or eighty feet, the frontages are set back where the improvement scheme offered facilities for such an arrangement. This breaks the monotony by showing return frontages in light or in shadow, by opening up the road to the sun, and by giving space for grouped trees and shrubs [fig. 11, p. 27C]. In one or two of the busier quarters ranges of one-story shops line the footpath in these wider sections.

Following our water avenue we reach, on the south side of the road, the university and

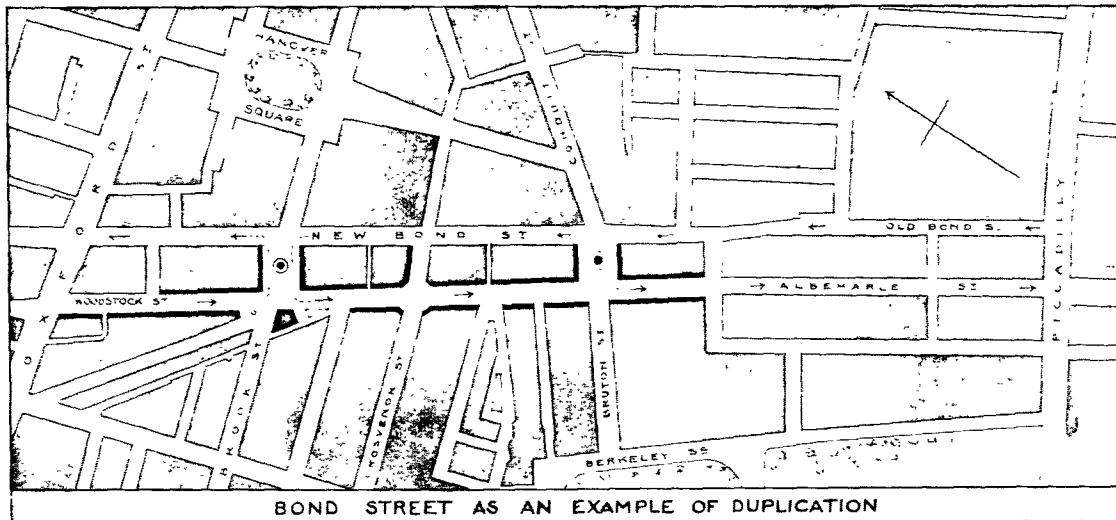


FIG. 9.—A. MONUMENTAL CALDEA

F. A. L. G. G. G. G.

group of buildings in connection with it. These have undergone extensive remodellings in recent years, largely due to a revolution in the views of our educational body. Ten years ago its whole aim was concentrated on providing a mental equipment calculated to ensure material success. As with other new universities, ours was tending to become a mere knowledge factory without cultivating the amenities and an appreciation of the finer shades of the art of life.

On recognising these defects we set to work to secure a greater breadth of view as to the factors that make for a just comprehension of the point at which we should aim. Historical and sociological studies are taking a much higher place, and in order to cultivate all those social developments that arise out of a community of students we have greatly extended the residential facilities in our educational group so that our undergraduates may have every opportunity for the cultivation of ideal studies without continual interruption by too close a contact with the business and commercial aspects of life. Efficiency counts for



11. 10

much, and, in school, method and system are paramount: but the truest education means a great deal beyond practical information. To understand chemical reactions or the principle of the dynamo may put a man in the way of earning a living, but advantages him little in the more necessary knowledge as to how to make the most of life.

As you may imagine, this change of ideal has brought about a marked alteration in the character of our university and allied buildings. Up to within the last ten years our main effort had been in the direction of well-arranged and well-appointed technical laboratories and lecture halls, while the artistic character of the buildings, the influence of quiet and dignified surroundings, and of the subtle and indefinable charm that tends to promote a dignified and well-balanced habit of mind, were but little regarded. We were fortunately able to extend the site by the purchase of a small private park containing some fine old trees, and with this as a basis a garden scheme has been extended round our other buildings, linking them up with the residence blocks by means of covered ambulatories and sheltered walks and avenues, rigorously avoiding all intricacy and fussiness of design both in buildings and gardens, the aim throughout having been to give such surroundings as may conduce to thought and the worthy expression of abstract ideas. Bodily training has not, of course, been forgotten, and the provision of a campus has given the opportunity for a broad and dignified piece of architectural composition

in the buildings grouped round it, while the position selected for this section leaves in quiet seclusion the avenues and lawns allotted to the more meditative students [figs. 12 and 13].

Of course we could not adopt the grandiose lines of the newer American universities, such as those of California and Pittsburg, and our national instincts are against working on quite so large a scale, but we have obtained valuable hints from these more ambitious schemes [fig. 14].

Immediately beyond the university group is placed the new museum, of which one might say much did time permit, and beyond this lies the park devoted to zoological and botanical collections. In this park are built up various large-scale geological models designed to give effects approximating as nearly to the real thing as possible. This park forms one of the series of inner parks all within two miles of the heart of the city.

When the problem of arranging a park system first arose opinion was divided into two sections, and discussion ran high for some time, one party taking the view that the traditional type of the English park should be adopted, and the other that all natural characteristics should be preserved and maintained, and that the sharpest possible contrast should be presented to the artificiality of the city, all boundaries extending far enough to make the landscape complete.

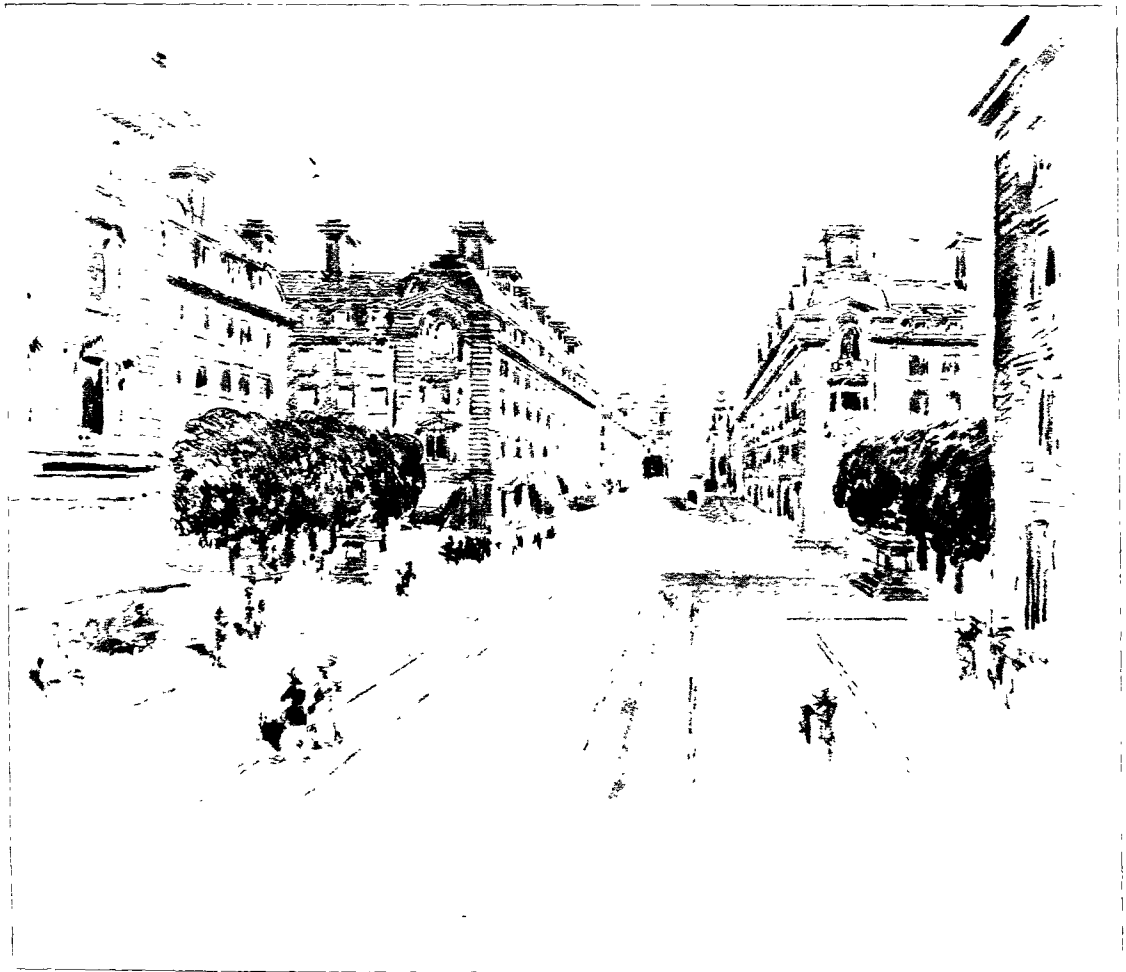


FIG. 11.—TREATMENT OF MAIN THOROUGHFARE

F. C. REYNOLDS DEL.

One side of the case has been well put by Mr. Chas. Mulford Robinson, the American writer, in his book *Modern Civic Art*, and the other even more appealingly by Maurice Maeterlinck. Mr. Robinson's views I may quote from the summary of his book which I gave in the JOURNAL R.I.B.A. of the 5th December last, viz.—

The dominant motif of the park is that of change from the normal conditions of town life, and this should be kept in view in both selection and development.

The success of a park scheme is absolutely dependent on a wise choice of sites. The late Chas. Eliot laid down three principles of selection: First, that the land should possess or afford opportunity for the creation of interesting or beautiful scenery of one type or another; secondly, that it should be a tract ill adapted to streets and buildings; thirdly, that it should be related with as much symmetry as possible to the district it was desired to serve.

Out of these principles arose the rule that stream banks and the low-lying ground adjacent to them should be reserved.

The boundaries of a park should, if possible, extend far enough to include a complete natural landscape, so that it shall as far as possible appear of indefinite extent, while any features of special interest will amply excuse deviations from the general limits.

The task is to preserve and emphasise natural characteristics, though the entrances will demand formality, more particularly where they mark the transition from the definite and formal city streets. The park being developed to present the sharpest contrast to the artificiality of the city, the utmost caution should be observed in admitting buildings into its area. Shelters and restaurants are necessities, but they should be as inconspicuous as possible, and no other building should be admitted. Statuary also has no place in rural parks: zoological and botanical gardens are at variance with their purpose, but there is no reason why provision should not be made for these in conjunction with a public pleasure-ground.

The object of the park is to enable everyone to keep in touch with all the varied beauties and interests that nature provides.

While Maeterlinck writes, referring first to the landscape, or, as he terms it, the "English" garden:—

It is natural, it comes into being spontaneously, so to speak, when we can dispose of extensive spaces that mingle, in a country of hills and groves and rivers, with the surrounding landscape. It is then just that land-

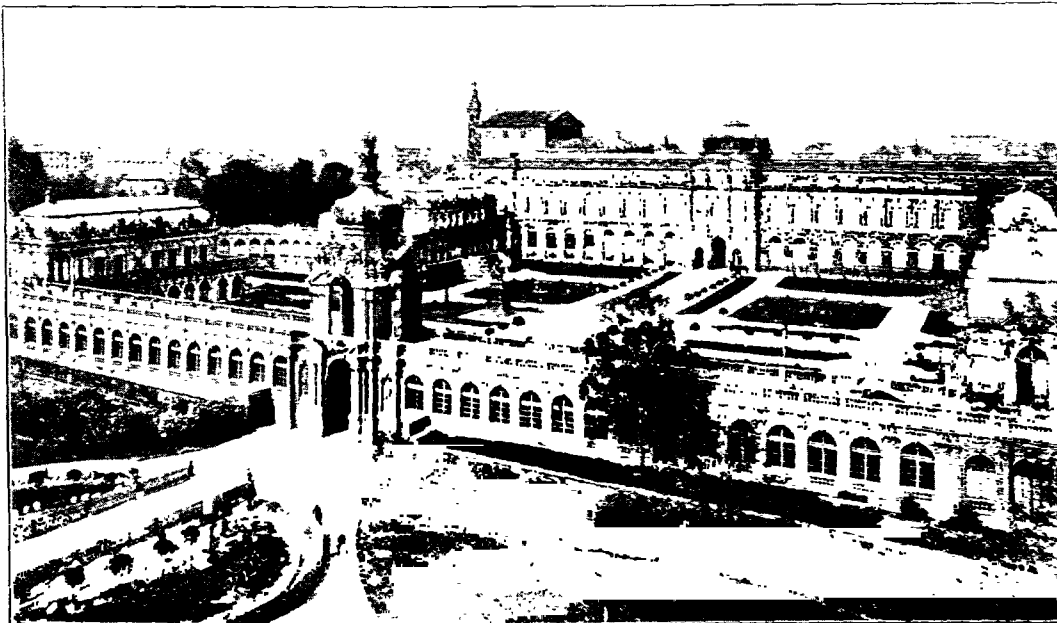


FIG. 12.—THE ZWINGER, DRESDEN. TREATMENT FOR UNIVERSITY BUILDINGS.

scape itself discreetly arranged and corrected "for the pleasure of the eyes." But it midably comes to look false and more or less absurd so soon as it aims at accumulating, in some poor enclosure, beauties which exist only by favour of the most limpid lines of the horizon, and which are nothing more than space harmoniously displayed. Let us not forget besides that the "English" garden, which is natural or "sub-spontaneous," as the botanists say in England, is rather, as we understand it, of Chinese origin, and that there is no art nor taste more impenetrable and more hostile to our own than that of the inhabitants of the Celestial Empire.

The garden of the white races, at least the European garden, was always wiser and more logical. Go back as far as we may, we see it striving to adapt itself to the architectural schemes that surround it. It continues them, interprets and completes them.

It has always seemed to us necessary that that which surrounds our dwelling should partake, in some small measure, of its shape and its regularity. It has always struck us as disagreeable that the featureless plain or the unkempt forest should begin abruptly at our front door or under our window-ledge. A transition was indispensable, and naturally entailed the appropriation of the nearest plants and their submission to the symmetries of the building.

This transition, this traditional harmony, which has been deliberately disregarded in our towns since the excessive use of the small "English" garden, is still found here and there in certain antiquated and almost dead cities, where perfect models survive of humanised walks and parks. I need not mention Versailles and other French gardens, whose sylvan decoration is so closely adapted to the buildings of the three Lewises. Nor, by a stronger reason, need I recall the illustrious gardens of Italy, whose perfections are so manifest: they contain and continue their porticoes, columns, and balustrades in so incomparable a fashion that this earth, perhaps, possesses nothing more satisfactory or more stately. But other instances, nearer at hand and not so splendid, are quite as typical.

Carry back your mind to some little Dutch town, with its canals bordered by giant espalier lime-trees and little red houses gleaming with mirrors and brass. Think, also, of the Béguinage at Bruges, whose simple triangular lawn planted with a few trees, or of the Petit Béguinage at Ghent, whose wide rectangular grassy spaces,

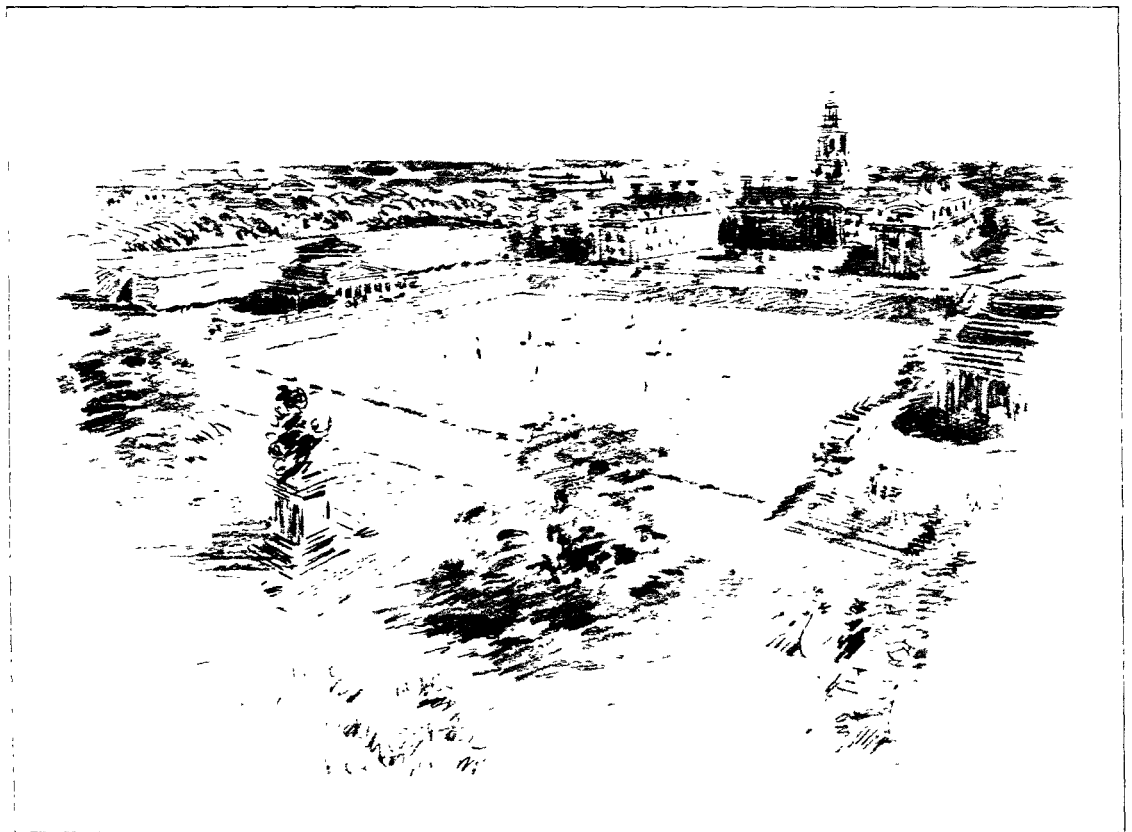


FIG. 14.—UNIVERSITY GARDENS

L. A. P. 106

lined with old elms and intersected at right angles by paths that lead to the church, offer the most persuasive examples of gardens in strict keeping with the appearance of the surrounding houses.

One could vary the appearance of these refuges infinitely according to the needs or counsels of the spot and the surroundings. Here, among these low houses, we have a square of lime-trees, matronly, round and fat, placid, full-blown, imperturbably green and all ahum with bees. Yonder, where the house-fronts are richer and more regular, would be a square of chestnut trees, whose opulent, heavy, thick, almost black dresses would drop to a man's height. Further still, among those pillared mansions, would stand an open space crowded with plane-trees: but I do not mean the plane-tree treated as we ill-treat it in our northern countries, where we know nothing of its beauty. I mean the plane-tree of the towns and villages of the South, where they pollard it when it reaches four or five yards in height. They thus obtain enormous, massive, thickset trunks, splendidly scaled with gold and oxidised copper, which at one time, as in the Cours Mirabeau at Aix-en-Provence, dart forcibly towards the sky to create fairylike plumed naves in the blue, and at another, as in the Allées d'Azoumar at Draguignan, weave a low vault, magical and cool as a submarine grotto, through which the sun can hardly contrive to slip a stray crystal dart that breaks in dazzling shivers on the flagstones.

The two schools eventually effected a very reasonable compromise.

It having been decided that an easily accessible series of parks and recreation grounds was needed, and as these had to be secured where land was available, without much regard to natural features, they have been laid out on formal lines based on the plotting of their own and of the surrounding buildings; while the opposite treatment was accepted for the more remote parks and common lands, some of which lie from ten to fifteen miles from the city, all, however, being linked up with the inner park series by means of parkways.

In laying out the inner parks their entrances and forecourts demanded careful study, in order that they should accord with the treatment of the park and with the character of the approaches. In some cases these forecourts are designed in conjunction with a group of public buildings and with one or more commemorative monuments, thus giving an opportunity for imaginative treatment unattainable where the buildings are of a commercial or domestic

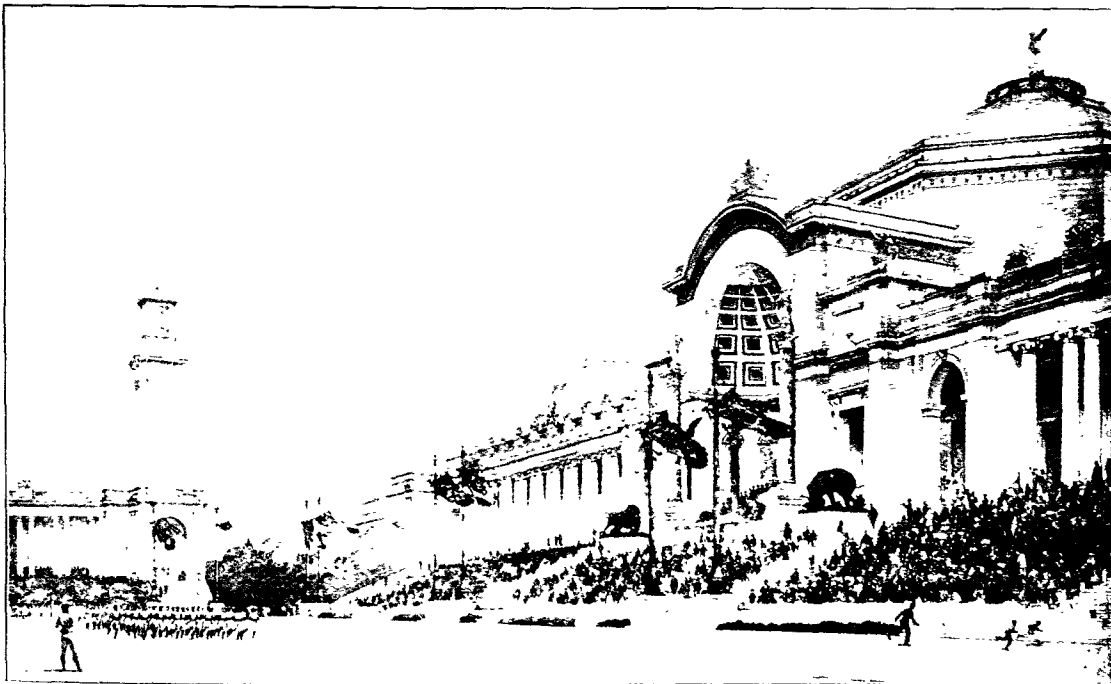


FIG. 11.—UNIVERSITY OF CALIFORNIA. DESIGN FOR CAMPUS.

character [fig. 15]. Beyond the actual entrance, in the case of the larger of these parks we have found it advisable to continue the line of the main approach for a short distance, terminating it with a fountain or other suitable feature. This adds materially to the interest of the approach and graduates the transition from the street to the verdant recesses of the park itself [fig. 16].

We usually endeavour to avoid running important thoroughfares in juxtaposition to parks and gardens, the main approaches being reserved for the park only and not forming part of the scheme of communications.

Passing from these to the larger and more remote parklands by means of the aforementioned parkways, we may note that the latter vary considerably in character; in some cases we have provided a boulevard parkway with electric tramlines on which a specially arranged service is run on Sundays and holidays: others have footways merely, through selected strips

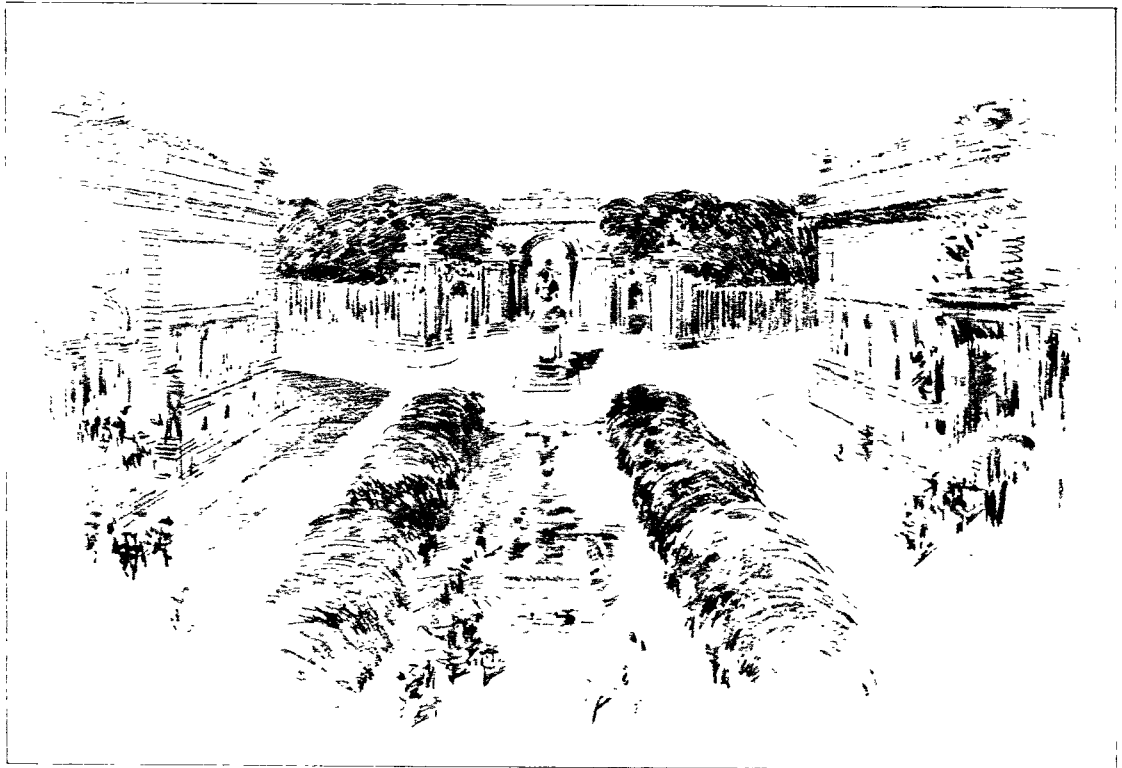


FIG. 15.—ENTRANCE TO PARK.

of country retaining as far as possible a rural character: and thus at a minimum of expense all classes of patrons are brought in touch with the places of recreation. A large proportion of these outer parklands were existing commons handed over to the city authorities. The additions have all been selected for some specific reason, either their own beauty or as affording extensive views, or sometimes because of their possessing a specially characteristic or rare flora or fauna. The naturalists' societies and field clubs have been of great assistance to us in these selections.

It will be realised that the extent of the area under the jurisdiction of our parks committee encloses quite a number of subsidiary towns and villages, and of course the requirements of these have had to be taken into account. The proportion of the country now laid under contribution to provide open spaces for our cities makes it obvious that the time is rapidly

approaching when the whole of England will for this purpose be divided into spheres of influence more or less under the control of the great centres of population, much as the land has already been divided up for purposes of water supply.

I have gone thus fully into the character of our park system, as we have not time to visit the more interesting of our outer parks, but we shall be able to take a run down the river valley to one of the smaller ones, and as by doing this we shall follow the old highway to the south-west, you will be able to note two or three problems which are being dealt with at the present moment.

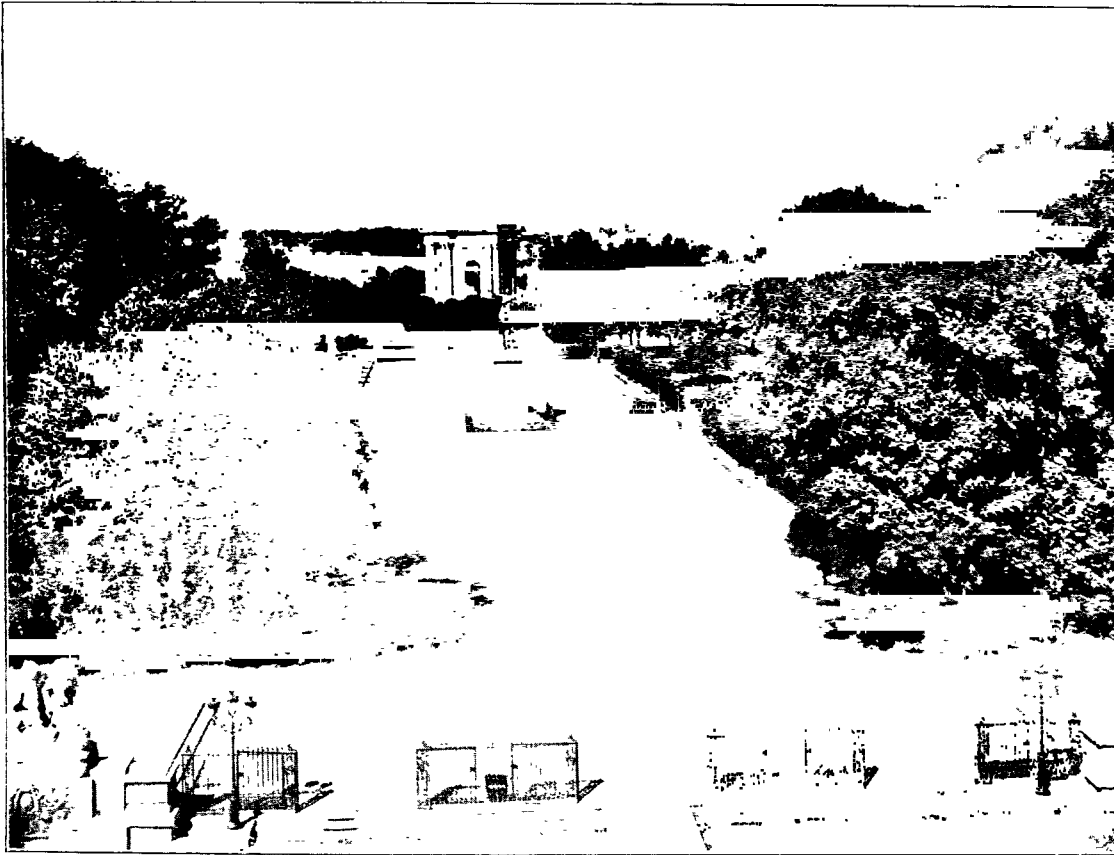


FIG. 10.—PARK ENTRANCE AT MONTELEONE.

The river itself has been but slightly altered, except by the addition of the necessary weirs and boatslides to render it navigable. There is fortunately but one factory abutting on it within the next few miles: this building has recently been remodelled by one of our leading architects, so that it presents a good appearance from the road, and its two pearl-grey concrete shafts are not ungraceful. As, however, the proprietors did not feel justified in rebuilding the river front, the town stepped in, and allotted a sum to be spent in refacing this facade, the architect's design having just been approved by the corporation.

Two miles further on we come to the largest of our suburban villages, already a town of some five thousand inhabitants when our improvement scheme was started. As the high road narrowed considerably here we had again to resort to duplication, which was the more necessary by reason of the facts that the old church and a particularly fine group of almshouses faced each

other at a distance of only thirty-eight feet, and that there were, moreover, several particularly fine Georgian houses demanding preservation. This old high street is throughout full of charm which any widening would have entirely destroyed: it has but one serious blot in that group of a dozen shops, the work of a speculative builder some eight years back—they are too substantial to pull down, but they are now to be refronted at the expense of the city, with the consent of the owner. The design for the front is the subject of a competition between the most successful graduates in architecture for the past six years, and I quote it as an example of the way in which our authorities are endeavouring to open the way to secure public appreciation of the best talent in our younger men.

In other directions we have around our city a number of garden suburbs, which have done much to raise our ideals in the grouping and surroundings of small houses. Those at first laid out exhibited a regrettable tendency to ignore the civic plan as a whole, and to display interesting and pleasant effects of a self-contained character that contributed but little to the general dignity of the town. However, more recently we have succeeded in combining the merits of the garden suburb methods with the broader treatment demanded by a comprehensive civic scheme.

Beyond the village suburb just traversed we come out into some broken common, and on the further side of this we reach the limit of our operations in this direction: the course of the river has been dammed to make a spreading lake, and beyond it is a thickly planted stretch of wood, a favourite picnic ground in the hotter days of summer. Over this you can see, away to the north-west, the long ridge which is included in our largest rural park, and from which vantage point you can obtain the well-known view over six counties.

Here we may terminate our excursion and rest for a while, unless you care to make the circuit of the lake before we dine on the balcony of the "City Arms" Hotel, while the sun slips down behind the ridge in front of us.

In this imaginary description I have endeavoured to be thoroughly practical and to suggest nothing that would not be easily within the powers of any of our great municipalities if once they can be got to realise the desirability of such an achievement. How far I have succeeded in this aim I must leave it to you to decide: but even if the possibility of some of these suggestions may appear to you to be open to doubt, the claim that we ought to throw all our energies into an advance on the lines indicated must surely admit of none.

We cannot hope to keep for ever the commercial supremacy of the world: special circumstances threw it into our hands, and it is not to be expected that a small country like ours will permanently retain the hold it has had on the world's commerce during the past century. This need not distress us: we are still the soul of the most enterprising and progressive race on the globe, and if we play our part we can remain the centre to which all the great communities that have sprung from us will look as their true home. England, if she sets her house in order, might offer such delights in the way of pleasant and rational life as to secure and retain the affections of the English all the world over. England, with its antiquities and traditions carefully preserved, its cities clean, convenient, and filled with noble and interesting works of art, with all the beauties of its countryside linked up with those of the town, would, by reason of the variety of its scenery and the shortness of its distances, be in its way one complete garden. Its trees and hedgerows, and the brilliancy of its greenswards and meadows, would, if only the works of man could be brought to a corresponding standard, make it a very jewel set in its surrounding seas, and a fit gathering place for all the great peoples sprung from its soil.

DISCUSSION OF THE FOREGOING PAPER.

Mr. EDWIN T. HALL, *Vice-President*, in the Chair.

MR. F. W. SPEAIGHT said he was afraid Mr. Lanchester had treated the subject, however brilliantly in its conception, from somewhere in the clouds. A scheme to be successful should always on its publication be accompanied by a financial statement showing that it was possible and financially sound: otherwise, however right it might be in artistic conception, it would be impossible to carry it out in the present financial conditions of the country. They must convince the man in the street that their ideas were not only artistic, but sound and business-like, before their suggestions could be seriously considered. On the London County Council and in Parliament they had to deal with shrewd business men, and it, say, a suggestion for improving Bond Street or any other street was put forward with estimates of what betterment was to be obtained, and with the opinions of such experts as the Commissioner of Police and other authorities showing that it would relieve the traffic, then there would be a prospect of those schemes being realised.

MR. W. H. LEVER, M.P., said his sympathy was largely with the last speaker, but with this qualification: he thought it was because we in this country had not seen the best examples of town planning in other countries, that when we came to deal with a practical scheme in our own country we found we had to overcome the opposition of the town council and of the official who ought not to be supporting them but ought to be on the side of advancement—namely, the engineer or surveyor attached to the town council. He was positive that if we could show to the people living under the squalid conditions of our towns the much happier conditions people enjoyed in other countries, whilst we could not in one step make immediate advance to the ideal scenes the lecturer had shown that evening, we should have made ourselves very dissatisfied with the present conditions, and every improvement we made would be towards the greater and the higher. It must be present to all how much we were influenced by the fact that from one end of England to the other, with the probable exception of one or two towns such as Edinburgh—and he named Edinburgh with great confidence—we had not in the country a single really decent example of how a town should be planned. We had many cities—such as Dublin for instance—where a good beginning had been made, but we had none where a good plan had been realised to completion. If we kept these ideals before us and gradually aimed for them in all our new developments and in the laying out of suburban areas, he could not help thinking that in another fifty years—not the ten years the lecturer spoke of—without any serious expense at all, we should have

entirely transformed the character of our towns, and practically with no financial difficulties. These problems were entirely a matter of time. If we had to carry out a town improvement immediately it would of course be very costly. But if we endeavoured to make our plans in advance—to have each town with its own plan of its suburban area and of what the interior of the town was to be, so that all new building operations before they were sanctioned would have to be considered in relation to this plan—he thought we could carry them out with practically very little expense. The only way we could bring that home to our town councillors and their engineers was by education. It was astonishing how ignorant the average councillors were on this subject, and he said so with all respect because he was certain they recognised their duty to the town not only from the economic point of view, but from the point of view of beauty; but it was mainly because their outlook was so restricted and their vision so limited. He would give an instance of this limited vision. The main road between Birkenhead and Chester was bound before long to have a double line of tramways carried through it, for a double line of tramways had already been laid within half a mile of the spot he was speaking of, and it would have eventually to be continued all the way from Birkenhead to Chester. Plans showing a width of 80 feet for part of this road were submitted: but the plans were returned with the remark that if the street was to be made 80 feet wide the council would reject them because of the expense of maintenance. The only answer he could give was that the adjoining city of Liverpool had that very year—that is, last year—promoted in Parliament a Bill to make 80-foot streets under certain circumstances compulsory: and, therefore, anyone laying out a new street and willing to dedicate the land should be helped. With regard to the street he was speaking of, it was not proposed to pave and macadamise it the full width, but only to the width the law required—viz., 36 feet—and to leave the remainder in grass. He mentioned this because it showed the ignorance of the authorities even of what was being done in the neighbouring city of Liverpool. Liverpool in this respect was setting an example to a great many cities in the country: it was doing a grand work, and if we could only get two or three centres of population such as Liverpool started on right lines, their influence would be enormous. As an illustration of the effect of laying out new areas, those who had visited Australia must have been struck with the difference, say, between Sydney and Melbourne. The people who laid out Sydney had not seen any

other city than such as we have in England: they went from England at a period when nothing with regard to town planning had been done; they went direct to Australia and laid out Sydney, which might be a Liverpool, or a Glasgow, or a Manchester, or a Birmingham, for that was the style of planning. The next city that was built in Australia, the people approached it through the United States, and in coming to Melbourne they had in view the American idea of town-planning, and Melbourne was laid out with good wide streets on the American plan. Hence the influence of America was clearly marked in Melbourne and the influence of England clearly marked in Sydney. Coming to Adelaide, which was a later city still, there seemed to have been a little resentment shown at the American plan, for in Adelaide they had adopted a combination of the English and American styles, with much better results. The Adelaide plan possessed all the width of roads of the American town, but there was an attempt to make it more beautiful and to adorn it with trees and other effects, which added considerably to its charm. He thought we should do well if we in this country, in laying out our towns, took the city of Adelaide as a model. It was necessary we should have knowledge of such examples as these, and it ought to be clearly understood from one end of the country to the other how cities should be laid out. Modifications in the plans of our towns might often be carried out without any serious expense, not quickly but gradually—probably all the better if not done too quickly. The main point was to have large powers given to our local authorities, so that they could dictate in what direction streets should run, what their width should be, and so on. Our present method of laying out suburban areas was wasteful in the extreme. Within a short distance of where he was now speaking he knew of a street that had been built and had had to be destroyed and widened and rebuilt inside of ten years. He thought they should all agree that if we could not see our town-planning ten years ahead we ought to be ashamed of ourselves. It could be done without great expense by fixing our minds on what was ideal, such as Mr. Lanchester had put before the Meeting, and then getting as near to it as our circumstances would allow.

Mr. ANDREW T. TAYLOR [T.] said he was very glad to have the opportunity of expressing his appreciation of the Paper they had just listened to. Mr. Lanchester had packed a great deal of most useful information into a romance which was somewhat unusual and novel. They were so accustomed to truth in very solemn guise that sometimes it got rather dull, but it had not been so that evening: it had been more delightful than any novel or romance, and he hoped some kind client would arise who would give Mr. Lanchester an opportunity of putting not only on paper, but in actual fact in stone and in the charm of trees and sculpture, all the delightful ideas he had promulgated in his Paper. Here was a scheme for a Carnegie or other

millionaire who could step in where civic bodies and corporations could not for fear of the ratepayer. As a humble member of the London County Council, he had come to the meeting hoping to get some ideas that might be useful to that body. He had no right to speak for them, but he could say that they were all interested in this question, and desirous of improving London in some form or other. For himself he was deeply interested in the subject, and partly on this account he had ventured to enter that august body hoping that he might be able to do something to further the architectural improvement of London. The Council had not been able to do much yet, because they were waiting for Mr. Burns's town-planning scheme, which they were hopeful would give them power that would be exercised shortly. The Council had also the fear of the ratepayers before them. They had come in as the economical party, and must not be too extravagant. As soon, however, as the ratepayers saw that it was to their advantage they had plenty of ideas which they hoped to carry out. The first thing they had to do was to get schemes for the extension and improvement of London, and he strongly supported the idea of competitions among architects for the improvement of London, not only in the central parts but the suburbs as well. They were trying to do it, and he thought it would be part of the town-planning scheme. They should be able, say, for thirty miles round London—to make a plan with central boulevards and roads, and diluents—by competition if possible, perhaps by compulsion—the borough councils of those suburban areas to adopt this plan, so that they might build upon it. That was exceedingly desirable. He thought nothing could be more interesting than a series of competitions in which their brightest young men, as well as our older men, might be able to give their ideas, and out of these competitions most valuable schemes and hints would come which he was sure would be carried out. Those who had had the privilege of visiting Vienna last year must have come back feeling how very much behind we in England were in town planning and in the provision of beautiful monuments and fountains. The little picture of the Folksgarden Mr. Lanchester had shown them must have struck them all as being one of the most delightful bits of planning they had seen. He was glad to have heard Mr. Lever's remarks. Mr. Lever had been their pioneer in this kind of work, and he would have the gratitude and respect of the entire architectural profession for what he had done. He had gone further than that, and had offered a sum of money so that young students at Liverpool University might study the subject of town planning. That was a most admirable idea, and he trusted it might bring forth far fruit.

Mr. RAYMOND UNWIN said Mr. Lanchester's Paper had taken him quite out of his depth, and he had said nothing in reply. His special experience in the matter had been in dealing with humbler subjects than those mainly touched upon

by Mr. Lanchester, and he felt very grateful indeed to him for giving them a wide outlook. Perhaps it was not right to say this. Mr. Lanchester thought in continents, but he seemed to approach that magnitude in the scale of his imaginative design. He felt, however, that great and valuable as was the help they got from such schemes, it was rather important for them as professional men not to frighten the public by putting before them too many big schemes which were not, as it were, perhaps, quite suited only to the outgrowth of the actual life of the town. They ought to take a very fast grip of the life of the town which was developing, and for which they had to find in their town improvement schemes the expression and work outwards from it a little bit more than working backwards from schemes in the air. He did not mean to suggest that there was anything useless in schemes in the air. It was particularly appropriate that they should have large imaginative schemes put before them to stimulate them in their work, but it was very important to keep in view the other side of this work of town planning. They must not lose sight of the fact that the Germans, who had perhaps more experience in modern town planning than any other nation, were departing radically and entirely from what was generally known as the "grand manner" in town planning. They were going probably very much to the other extreme: their plans were becoming too much muddled, too much worked in detail, and they were losing the sense of scale. None the less there was a great deal to be learned from the German point of view. He should have been glad to hear a little more definitely Mr. Lanchester's view as to the relation between formal and informal work. One of the most difficult problems in the laying out of estates in the wedding of the town to the country, was to decide as to the relative importance of the formal and informal. For his own guidance he had taken the line of considering that his duty was to treat the site and the conditions of the problem with very great respect—that his duty was to preserve as far as possible everything of natural beauty that was found upon the site. But whatever was done, apart from such good reason, should be done in a somewhat formal manner. One could, as it were, get a sort of rough-and-ready working theory, that so far as the site offered suggestions, offered spots of beauty, offered irregularities by undulating contours and so forth, much of the beauty of curved line and of natural feature might be got into the work; but as soon as that side of the work began to oppress one with the idea that there was something virtuous in irregularity or informality for its own sake, it showed that one was giving too much weight to that aspect. What a man did it was natural that he should do in a formal and straightforward manner, at the same time, to take the site as though it were a level billiard table, and to lay out schemes on paper without any regard to undulations or natural features, would be

erring just as much on the other side and would be to treat the site altogether with too much disrespect. Mr. Lanchester's suggestion of wide avenues leading out of the town he thought a most important one—not only important, but essentially practical. Take Finchley Road, one of the most important avenues leading out of London. The road was already crowded with traffic, yet a double row of train-lines was being laid without any provision for widening the road. In a few years vast sums of money would have to be spent in widening Finchley Road, which could now be done at a nominal cost if they only had the power of dealing with these things which they hoped to have under the Town Planning Bill. He should like to say that he had in experience found it a most difficult matter to combine the country and the town. The Garden City idea was naturally attractive to the English mind, but it had many pitfalls for the architect. There was a great tendency for houses to become too scattered. The modern Englishman desired to have his house detached, or at least semi-detached, and set in the centre of its own little plot of ground. If acres and acres of ground were covered with that sort of arrangement, very little total effect could be got; but Mr. Lanchester's suggestion of grouping his trees seemed really to give them the keynote of what should be aimed at—namely, to group our buildings and group our open spaces, instead of having detached houses, each with its own architectural form and arrangement; and instead of cutting up all our ground into little garden plots we should again gather it into groups in the form of greens, squares, playgrounds, and so forth. In that way he thought we might weld the country and the town together satisfactorily from the architectural point of view. The importance of defining our areas was one of the lessons we might learn from the beautiful old cities. Take Rhenberg, for instance, which had remained the same size for centuries: there there was the country coming up clean without any break right to the very wall, and then all at once began the town. If one compared that with the ragged fringe of derelict building land and rubbish heaps which formed the approach to our modern towns, the immense importance would be realised of setting limits and coming up to those limits before passing on. We should not, of course, enclose our modern towns with fortified walls, but we must at least enclose them with decent avenues and walks, and belts of woodland and orchards, or in the hundred other ways that at once occur to one, making beautiful divisions; so that when we approach the town from the country we may come up to some definite point and then pass into the town. He thought, too, there was some little danger if we got too much into our minds the planning of towns on the principle of zones: the natural growth tended rather to supplementary centres. It was very important in a plan of any town or district, or

even building site, to have some central feature around which the plan grouped itself. After all, the plan was a design, and we must have scale in our design: some parts must be emphasized and others subordinated, and he thought we might greatly beautify the suburbs of our towns if we stuck fast to this idea of developing supplementary centres, where the minor public buildings and business premises which would always tend to grow up a certain distance from the centre might be grouped in a rather formal and fitting manner.

PROFESSOR C. H. REILLY, M.A. Cantab. [A.] in proposing a vote of thanks to the reader of the Paper, said he was particularly glad to do so because Mr. Lanchester had held up to them the ideal rather than the immediate prospect. He felt that most English architects were so deeply immersed every day of their lives in the petty details of actual practice, in the carrying out of small buildings, that they were like squirrels in a cage going round and round; that it was ideals such as Mr. Lanchester had given them that made their life really worth living. He (Professor Reilly) had had a very serious responsibility put upon him by Mr. Lever to try and start in the University of Liverpool a school to study this great subject, and he felt that the first thing to make a good school was to ensure getting as Professor of Civic Design a gentleman who was able by his power as an architect to conceive great schemes and ideal projects—things that would stir enthusiasm in their students as well as in all others interested in noble architecture. This, he felt, was as important as that other side of their teaching which would deal with the practical problems of the immediate future. There was no time that evening to sketch the details of such a school, but he was convinced that to achieve success it must appeal on the one hand to the architects who could dream dreams, and on the other prove to the borough surveyors that those dreams were worth consideration. He therefore saw that from the outset they must have two classes of students, the Architects, who wanted a widened scope to their vision, and the Borough Surveyors, who must be taught exactly what their functions were. The Borough Surveyors, when they had received a certain education in the possibilities of Civic Design, would be the ordinary channel by means of which some of their ideas would reach the city councils and be carried into effect. He had very much pleasure in proposing the vote of thanks, and he would like to include in the vote their thanks to Mr. Rickards too for the sketches he had made to illustrate these fine ideas. He felt sure that most of the younger architects had for years been inspired by the buildings of Messrs. Lanchester and Rickards. They had all looked up to Cardiff with admiration—many of them almost with reverence. He was confident that if they (Messrs. Lanchester and Rickards) had an opportunity to carry out such a scheme as had been sketched that evening, they would remove the reproach, that had long

rested on us in England, that monumental architecture was beyond our scope.

Mr. DELISSA JOSEPH [F.], in seconding the vote of thanks, said he was sure they must all have been deeply impressed with the charming outline of a fairy city placed before them by the accomplished lecturer. His imaginary visit to the Continent must have called to the minds of his hearers the fact that there was a municipal spirit on the Continent the absence of which was acutely felt here, and it was a commonplace to say that so long as that municipal spirit was not similarly developed in this country, so long would it be difficult for the great ideals which the lecturer had placed before them to become accomplished facts. Arising out of that, one could not help being impressed with the extraordinarily different position which the architect occupied on the Continent from that which he occupied here. There he was not only the designer, but he was frequently the head and front of the municipal enterprises of his time. It was astonishing, if one followed the movements in many German cities, to find how the origin and execution of such enterprises were frequently in the hands of the architect, who took the place there of the initiator of many of those movements which have resulted in the beautification of many continental cities. It might also be worth considering whether one might not also go to the Continent for the means of bringing about the ideals which the lecturer had put before them. Why should we not seek to bring into being a Ministry of Fine Arts as it existed in France, so that with the aid of local Committees of Taste some effort might be made to control the design of buildings in the same way as the Legislature at present permitted the control of the structure of buildings? The disfigurement of the countryside which was obvious to us all, and which was traceable to the absence of control of design, would be impossible were there some measure of supervision such as might be accomplished by the establishment of Committees of Taste under the control of a Ministry of Fine Arts. It might appear an unattainable ideal, but it was a suggestion to which many thoughtful men had given their minds, and for which there were useful precedents on which an attempt might be made to found a similar procedure in this country. The impression left on their minds by Mr. Lanchester's Paper was that they had been listening to the imaginings—the fine, noble imaginings—of a man whom they had always looked upon as a great architect, and whom they now knew to be a man of great imagination, and in asking them to accord him a cordial vote of thanks he felt sure that he was putting before them a proposition which would receive immediate acceptance at their hands.

Mr. G. T. BROWN [F.], President of the Northern Architectural Association, in supporting the motion, said he thought it right that Mr. Lanchester should put before them his views in such an ideal shape, bearing in mind the fact that

"man's reach should exceed his grasp," because, whatever was likely to be done, it was bound to fall short of that which they all hoped for. One point struck him as particularly urgent with regard to the near future of town planning. If the Town Planning Bill became an Act of Parliament, they as an Institute would have to initiate some steps to materialise the ideals Mr. Lanchester had put before them. It was very probable that special town planning committees would be appointed, and he thought the Institute should take some steps to have co-opted on to these committees representatives of the architectural profession who might be appointed for that purpose by the Institute in London and by the Allied Societies in the Provinces. In this way the general taste on these committees might be very greatly advanced. He thoroughly agreed with the idea of a Committee of Taste under the control of a Ministry of Fine Arts. Such a committee was needed in almost every centre to advise the municipal committees on the particular lines they ought to take with regard not only to planning the streets of towns, but also to the laying out of open spaces and the dealing with different elevations that came before them. It ought to be made a criminal offence to put up some of the buildings which we now see. The architect's work was always in evidence. If a doctor made a mistake it was put underground; but an architect's mistakes remained above ground and did incalculable mischief. Buildings were put up which, if not immoral, were distinctly un-moral in having a bad effect on public taste for all time. He quite agreed with Mr. Speaight that the financial aspect is an important one. And the mention of it reminded him that some three or four years ago Mr. Cackett, the then President of the Northern Architectural Association, evolved a very good scheme for the planning of certain streets in Newcastle where some slams were to be pulled down and new main arteries of traffic driven through the centre of the town. The City Council had already dealt with the matter, and Mr. Cackett at the time clearly pointed out to them that if, instead of merely buying the land necessary for the width of the street, they bought a certain area stretching back from the frontage on each side, an exceedingly advantageous scheme would result. The City Council had only bought three or four feet of land on each side of the street they were driving through this area, and were making frontages which were not frontages really but strips from the property almost abutting on the street. Mr. Cackett's scheme was laid before the City Council, but they practically disregarded it altogether. It was borne in upon one how important it was that they as an Institute should have some voice in these matters. The Institute had already done much good in getting architects recognised as interested parties in connection with the Town Planning Bill, but their efforts might go further.

THE CHAIRMAN said they had had one of the

most interesting debates they had had for a long time on a subject which was the coming subject for the whole of the country. Probably most of them knew that there had been a Town Planning Committee of the Institute ever since the inception of the Bill, and active steps were being taken in the direction of seeing how municipalities and others could be assisted when the proper moment arrived. One thing must not be forgotten in dealing with town planning—viz. that the plans of old historic cities like London were historic plans, if he might use that expression. For instance, the first Roman London had its limit in what is known as Sherborne Lane: that was then abourne or brook, and was the boundary of London, which later on became a street. Then, again, London was extended to Walbrook, and Walbrook is now a street. Hence it is not always an accident, but is an historic fact which is represented by many streets which are looked up in now as poor streets: if, however, we were starting *de novo* to lay out the whole place we should not design those streets. He was very much interested in Mr. Raymond Unwin's remark as to the advantage of doing away with a lot of little gardens and concentrating them into areas. Such a scheme had been adopted in an estate with which he himself was connected as a Governor—viz. the Dulwich College Estate, which was a large property, covering an area equal to about one-sixth of the whole of Inner London. There the Governors had laid down a scheme by which all over the estate had been laid out plots of from ten to twenty acres to be kept open as playing-fields for the surrounding houses, which would ultimately cover the whole estate. They were hopeful that when that estate was covered people would look back and hold the names of the Governors in respect for having put these little cases in the desert of houses that would ultimately be there.

MR. LANCHESTER, in responding, said that at that late hour he would not attempt to deal with the discussion except in the briefest possible way. Mr. Speaight had found fault with him because he had not dealt with the financial side of the question. He did not think it was possible. The Paper was intentionally more or less of a suggestive character, and he did not think that in order to start other people's minds working, if they had been actuated to start, it would carry them much further than the suggestions he had made in his Paper.

MR. W. R. DAVIDGE (L.) sends the following contribution to the discussion:—

A Paper on such an eminently interesting and topical subject as town-planning cannot fail to touch many chords of sympathy in all whose life is constantly given to the solving of little portions of the same great problem. It is eminently refreshing, for once in a way, to take one's standpoint on a more airy pedestal and see, even in a flight of fancy, whither we are tending, to what goal our efforts

should lead us, and what part in the great whole we as individuals can take in the working out and gradual evolution of the City Beautiful.

Mr. Lanchester's Paper as a flight of fancy is free from the trammels of detail and cannot justly be criticised on the score of expense—it is quite frankly put forward as a suggestion—a great ideal or series of ideals to be kept in view; the criticism of finance committees and the grudging consent of the ratepayer come naturally and quite rightly at a later stage. No great scheme or suggestion of the magnitude sketched by the author could be regarded as immediately practicable in its entirety, or in anything like the period of ten years which he assigns in his prophetic eye. It may, and probably will, take ten times ten years before such a city as London can be so completely transformed as the author suggests, even with the fullest co-operation and absence of active opposition: but what of that? Let us at least do our part in the great work!

There are many among us who would regret to see the old City hacked and mutilated to attain the somewhat empirical proportions as to width of streets laid down in the Paper. It would have been interesting had one or two practical examples been given of the suggested method of treatment, say, for a narrow City street running east and west like Lombard Street, and for one of the more important of our main roads out of London—take an example such as the well-known and well-nigh hopeless Old Kent Road.

As was well pointed out during the discussion, the great necessity is for each town to have an individuality of its own—due to its natural position, to its contours, and to its natural gifts—apart from all general rules as to street finishings and furnishings—apart altogether from the shape of its squares, and even from the placing of its sculptures. The deadly monotony, the foot-wearying *ennui* that is possible even in towns planned after the "grand manner" is a commonplace of travel, and it is for architects to adapt their ideals to the *ground*, and to produce monuments of architecture that will fitly and worthily fill their place. If there is a hill or belvedere it must be utilised to the best advantage; if there is a river or even a tiny stream it must perforce have its influence on the general plan, and be made to contribute to the public pleasure.

It has often been said that German and other continental towns are pleasanter places to live in than are our own towns. Whether this be so or not, there is no question that many of our neighbours, with no more natural advantages than ourselves, manage somehow to make the most of such advantages as they have, and to add to them still further by a judicious disposition of the more important buildings, and by a wise and almost lavish system of planting trees and flowers.

Our London squares, when well kept, are unique and delightful oases in the desert of bricks and

mortar: many of our parks and open spaces are worthy of being compared with similar parks in any other great city: but do we make the most of them? The author of the Paper rather deprecates the running of important thoroughfares in juxtaposition to parks and gardens. No doubt he is right from the point of view of the quiet user of the park, but the countless thousands who pass along the main roads to and from their toil have a right to at least a glimpse of open park land, to the sparkle of the sunshine on the lake and to the brightness of the flowers, and much might be done to improve such thoroughfares by opening out portions at any rate of the park enclosures and by bringing all such beauty spots within easy reach of all who pass that way.

The charm of the old-time street, with its quaint gables and balconies and its irregularities in plan, is undeniable, and there seems no reason why a little more latitude than at present should not be allowed in planning our new thoroughfares and highways. Why should all building enactments as to building lines and projections have the effect of flattening out the two sides of a street until it forms a mere channel of uniform width along which the traffic can roll without obstruction?

The deplorable character of the average suburb is emphasised and intensified by the endless lines of streets with frontages unbroken except by an occasional cross street of identically the same pattern. The thanks of the whole community, and particularly of the architectural profession, should be given to Mr. Lever and others who have worked with him in creating model villages and garden suburbs; but even these are much hampered and restricted in many cases by unnecessarily stringent requirements and regulations laid down in the past to control the speculative builder.

The enactments as to air space afford an instance, perhaps, in which the present requirements hardly go far enough: to put a restriction upon the *cubic* amount of building on a given area as suggested by the Paper would, however, be hardly enough, unless the area of open space to be provided were also increased. The suggestion made by Mr. Raymond Unwin that the amount of private open space to each house should not be large, all available space being thrown into the open spaces or gardens common to all, has much to commend it, and is worthy of a good deal of consideration on the part of those who have to lay out suburban estates.

In conclusion, I should like to add my appreciation and thanks to Mr. Lanchester for the amount of thought and labour he has put into his Paper. The free discussion of such a widespread subject in all its bearings and ramifications is not possible in one brief evening, but enough has been given us to afford ample food for reflection on this most fascinating of subjects—the construction of a city that shall be truly noble—every street and public place a truly worthy one, and every house a Home.



9 CONRUE STREET, LONDON, W. 20th February 1909

CHRONICLE.

The President's "At Home": Travelling Students' Drawings.

A large number of members, London and provincial, responded to the President's invitation, and were present at the "At Home" held in the rooms of the Institute on the 8th inst. Advantage was taken of the occasion to exhibit the drawings resulting from the tours of the following Travelling Students—Mr. Arthur R. H. Jackson (*Oven Jones* 1907), Mr. G. Salway Nicol (*Tate* 1907), Mr. Harold Cooper (*Sontag* 1907), Mr. George Drysdale (*Soane and Tate* 1908), Mr. S. G. Follett (*Panor* 1908). The drawings made an exceptionally fine and interesting collection, and the opportunity of viewing them under the happy conditions of the evening was greatly appreciated. It is in contemplation to publish in the current volume of the JOURNAL one or more of the Papers sent in by students descriptive of their tours. Some of the drawings shown at the "At Home" would be given as illustrations.

Beauties and Deficiencies of London

The Times of Tuesday published a *resumé* of Mr. Lanchester's Paper, and, returning to the subject in a leading article the following day, gave its unqualified support to the views Mr. Lanchester puts forward. The writer of the article brings clearly before us our duties as citizens of London. "We should know by this time," he says, "that it is impossible to disguise London. It is a huge town, and nothing will make it look like anything else. Yet we are ready to accept any excuse for not attempting to improve it. We point out yesterday (in an article on London Scenery) how great are the natural or accidental beauties of London: as indeed the pictures of Whistler have proved to us. He has told us how 'the evening mist clothes the riverside with poetry as with a veil, and the poor buildings lose themselves in the dim sky, and the tall chimneys become *campanili*, and the warehouses are palaces in the night.' This is true enough, and Whistler had a right to take pleasure in the landscape of London, and to paint its beauties. But the citizens of London ought not to be content with these accidental

beauties of its landscape, produced by the magic of nature acting upon the mean and planless work of man. It is the duty of a civilised people to make their own works beautiful in themselves, whatever the weather may be, with the beauty of human design and order. This we cannot do unless we learn to take a proper pride in our towns, and first of all to feel a proper shame in their deficiencies. A great people should express its greatness in its towns, as an artist expresses himself in a work of art: and this, not merely by the splendour of particular buildings, but by the plan and order of the whole. In this way, too, much of London expresses, not our greatness, but rather our futile discontent with things as they are: and where new parts of London are growing up there are few attempts to make them more expressive than the old."

The United States Council of Fine Arts.

The Council of Fine Arts created by President Roosevelt is the direct outcome of unceasing effort on the part of the American Institute of Architects to bring about the appointment of a body of experts to exercise control over the design of public buildings, the location and erection of public monuments, the laying out of open spaces, street improvements, &c. The newly-constituted Council is composed of twenty-one architects, four painters, four sculptors, and one landscape architect. The President's order provides that before any plans are formulated for any public building or grounds, or for the location or erection of any statues, the matter must be submitted to the Council of Fine Arts, and their advice followed, unless for good and sufficient reasons the President directs otherwise. The order directs "the heads of executive departments, bureaus, and commissions to govern themselves accordingly." The Council is constituted as follows:—

Architects—Cass Gilbert, C. Grant La Farge, Walter Cook, William A. Boring, S. B. P. Trowbridge, John G. Howard, Glenn Brown, Thomas R. Kimball, John L. Mauran, D. H. Burnham, John M. Donaldson, George B. Post, Arnold W. Brunner, Robert S. Peabody, Charles F. McKim, William S. Eames, James Rush Marshall, Abram Garfield, Frank Miles Day, William B. Mundie, C. Howard Walker.

Painters—John La Farge, F. D. Millet, E. H. Blashfield, Kenyon Cox.

Sculptors—Daniel C. French, Herbert Adams, H. A. MacNeil, K. T. Bitter.

Landscape Architect—Frederick Law Olmstead, jun.

Change of Papers for the 29th March

Arrangements have been made for the reading of a Paper by Mr. Marion H. Spielmann, F.S.A., on "British Sculpture of To-day," at the General Meeting of the 29th March. This Paper will take the place of the one by Sir Aston Webb, R.A., on

"Buildings for Higher Technical Education," originally arranged for that evening, but which, owing to Sir Aston's engagements, has had to be postponed till next session.

The Reorganisation at South Kensington.

The Times of the 11th inst. published the following letter addressed to its Editor from Sir C. Purdon Clarke, C.I.E., F.S.A. (F.), Director of the Metropolitan Museum of Art, New York:—

SIR.—With reference to recent correspondence respecting a system for the rearrangement of the art collections at the Victoria and Albert Museum, which the Board of Education has adopted on the advice of a committee of well-known experts, I wish to state my unqualified approval of the scheme selected, which, from my acquaintance with the museum and with those using it, is, to my mind, the only method by which the collections can be perfected and utilised in accordance with the purpose the museum was especially created for. This testimony is in response to several private letters from well-wishing friends in England, who are asking me to take the opposite course and to protest against the proposed arrangement; but in each case I recognised the same old arguments which, during the period of over forty years of my connection with the museum, were always put forward to retard progress and to prevent the adoption of a scientific basis upon which only the artistic structure could be erected without detriment to the utility of the collections.

The original purpose of the museum—so long overlooked—will now be accomplished, and each of the great art craft sections as a separate entity, in the hands of capable officers, will soon become a centre of reference, to which all wanting help or guidance in the several crafts will naturally apply.

The Victoria and Albert Museum was founded at the close of the Great London Exhibition in 1851, and intended to fill a want which the British Museum could not supply. It was attached to the School of Design afterwards the National Art Training School, and began existence by a vote of £200,000 from the House of Commons for the purchase of examples of art, principally modern, from the study of which it was intended that the various art-crafts should be raised from their then low level to at least the highest standards then prevailing in Europe.

An æsthetic arrangement was neither attempted nor considered essentially desirable, but during the directorship of Sir Henry Cole, who was practically the founder, the structure of the building and its embellishments were all utilised as experiments in reviving the great medieval arts, and these works were entrusted to the best practical art-designers that Sir Henry could obtain at that time.

The Government has fortunately found a strong man in Sir Robert Morant, for none but a broad-minded thinker, with great administrative ability, could have carried such a scheme through to completion.

Like the prophet of Israel, I have been called upon to curse, and, like him, I am forced to do my duty and to bless the Board of Education for its wisdom in selecting a practical scheme for the future development of the Victoria and Albert Museum. I am, Sir, yours obediently

C. PURDON CLARKE,

Director of the Victoria and Albert Museum

The County Hall Amended Plans.

The Chairman of the L.C.C. Establishment Committee states that the amended plans of the elevation of the new County Hall are now before the professional assessors, and are afterwards to be submitted to the County Council. It is understood that the public will be afforded the opportunity of viewing them, as in the case of the original plans.

L.C.C. Central School of Arts and Crafts.

Arrangements have been made in the department of architecture and building crafts for the delivery of five lectures on the materials of construction and decoration by Mr. Noel Heaton, B.Sc., on consecutive Thursday evenings, at 8.30, commencing 18th February 1909. The course is intended primarily for students of architecture, and will supplement the instruction given in building construction. The materials dealt with include metals, natural building materials, artificial building materials, and decorative materials. The course is open to students of the school, and architects and others interested in the subject are also invited to attend.

The American Institute of Architects.

The American Institute of Architects, by a resolution of its annual Convention, is to consider the advisability of establishing a student group or section similar to that of the Royal Institute of British Architects. It is also proposed that the Institute shall provide for representation upon its board of directors of those societies which have shown themselves useful in the cause of architectural education.

Volcanic Ash and Portland Cement.

The American consul at Nagasaki, says an American paper, has issued a pamphlet, describing the use and importance of volcanic ash in combination with Portland cement, especially for construction work in salt water. The advantages claimed for this volcanic ash are that in combination with Portland cement it gives a greater tensile strength than cement mortar alone. It is also claimed that the mortar is denser than cement-mortar, and does not permit the percolation of water, thus obviating the injurious action of sea-water salts. This density gives it a superior quality for construction of water reservoirs in reinforced concrete for the protection of iron from oxidation. Should the correctness of these claims be proved by trial it is highly probable that the enormous volcanic resources of the Philippines will provide for a new and profitable industry.

Discoveries in Babylonia.

An interesting paper on "Discoveries in Babylonia and the Neighbouring Lands" was read last Monday at a meeting of the Victoria Institute by Dr. Theophilus Pinches. Dr. Pinches said the discoveries of the Germans on the site of Babylon

practically made the city live once more. According to Dölitzsch, it was a comparatively small city, not larger than Dresden or Munich. Unfortunately the remains of the Tower of Babel have within recent years been cleared away to build the dam of the Hindyeh Canal, and instead of a great monument the depression where its foundations were laid is now all that exists. The basement of the tower was square, and not, as the pictures in old family Bibles and elsewhere showed, circular in form and tapering with a spiral ascent until the top was reached. According to Dr. Weissbach, the structure measured about 309 feet each way, and was about the same height. Though this is only a third of the height of the Eiffel Tower in Paris, it was still sufficiently imposing as a high monument. The lowest stage was much higher than any of the others, and the topmost stage was the upper temple or sanctuary of the god Bel or Merodach, a hall of considerable size, 80 feet long, 70 feet broad, and 50 feet high. Dr. Pinches gave some account of the excavations of Americans, who have made some most successful researches in Babylonia. The site they have more especially explored is Niffer, the ancient Nippur, a site which the Babylonians identified with the Calneh of the tenth chapter of Genesis, one of the first cities of Nimrod's (i.e. Merodach's) kingdom. It contains the ruins of a great tower resembling that of Babylon. The antiquity of this town and temple was regarded by the Babylonians as being as great as that of the world itself. At the ruins of Bismya, the ancient Adab, there is also a temple-tower, on the summit of which were found inscriptions of the reigns of Dungi (2700 B.C.) and Sur-Engur (2800 B.C.). The deepest excavations at this spot revealed deposits of thrown pottery of graceful design, which Dr. E. J. Banks regarded as belonging to the most remote period of Babylonian civilisation—namely, 10,000 years ago or earlier. Another interesting discovery was that of a structure supposed to be a crematory. Although the Babylonians burned their dead, ordinary burial was also practised, but instead of coffins the body was apparently enclosed in a large jar betwixt interment. Professor Scheil gave reproductions of some of the gigantic specimens of pottery which he found, in which the body was apparently inserted entire.

A Centenarian French Architect.

M. Charles Famin, architect, in whose honour the city of Chartres has just held a festival to celebrate the one hundredth anniversary of his birth, was born on the 18th February 1809. M. Famin's father, Sainte-Marie Famin, Grand Prix de Rome in 1801, was an architect of ability, to whom Napoleon entrusted the restoration of the Chateau de Rambouillet, and his grandfather, César Famin, was the last sheriff (*échevin*) of the city of Paris. The aged architect relates how one day, when playing with his sister in the court at Rambouillet, the Emperor

joined them and took him in his arms and caressed him.

M. Famin obtained the Grand Prix de Rome in 1835 in the section of architecture, having among his colleagues at the Villa Medici Gaudot, Flandrin, Bonassieux, and others who afterwards became celebrated in different walks of art.

After a few years' practice in Paris, during which he carried out the restoration of the Chateau de Berry and the rebuilding of the Collège Rollin, he finally settled at Chartres, where he has had a successful career. He has done much useful work as a member of the Municipal Council of that city, and was for a time president of the local archaeological society.

Three years ago, at the age of ninety-seven, he was nominated *Member Correspondant* of the Académie des Beaux-Arts. JOHN HENR.

Mrs. Welby Pugin.

The death is announced, in her eighty-third year, of Mrs. Welby Pugin, widow of Augustus Welby Pugin, the distinguished architect, ecclesiologist, and author, to whom the "Pugin Studentship" was founded as a memorial in 1864. She was A. W. Pugin's third wife and has survived her husband fifty-seven years.

REVIEWS.

THE CARE OF ANCIENT MONUMENTS.

The Care of Ancient Monuments: Some Account of the Losses Sustained by the Monuments of the European Countries in consequence of the Neglect of the Monuments and Objects of Science and Natural History, and the Preservation of the Historic Cities. By G. Baldwin Brown, M.A., Professor of Fine Arts in the University of Cambridge, 1905. (Cambridge University Press.)

At the International Architectural Congress of London, 1906, held under the central auspices of the R.I.B.A., ancient monuments were deemed worthy of a section to themselves. Much interesting discussion resulted in the appointment of a small sub-committee to which certain duties were allocated. This consisted of the Hon. Secretary of the R.I.B.A., Professor Baldwin Brown, and the present writer. That committee has never been called, and the fluent periods uttered at the Congress may be said to have had a vaporous ending.

It is more surprising to discover that the volume whose title heads this article, though published in 1905, and essentially a text-book on the subject, has never yet been reviewed in this JOURNAL. It has not met its deserts. Since its publication the fair annals of England in general, and her capital in particular, have been indelibly stained by the wanton destruction of Crosby Hall, and three separate Royal Historical Monument Commissions (not permanent) have been appointed. Scotland, as usual,

in the way, gulfant little Wales following, England, ever drowsy when the amenities are concerned, lagging in the rear with a Commission comprising a few admirable and indispensable names of course, but no antiquary who has made ancient buildings his special study, and no architect whose tastes and practice have directed his experience to this very exclusive branch of architecture. An architect there is, which is more than can be said for the Welsh Commission, and an able one, whose well-balanced judgment would adorn and strengthen any Commission. No better representative of the R.I.B.A. Council could have been selected; but it is significant of the way Government manages or mismanages these things that, in naming a committee whose prime function is to deal with ancient buildings, they ignore both expert archaeology in relation to architecture and architecture in its relation to archaeology. Not to mention living experts, one may be permitted to wonder whether, if the late Mr. Mickelthwaite had still been with us, he would have been passed over—he whose insight and knowledge on this subject amounted to genius and his experience to finality.

The Scots Commission can boast the author of the volume before us as a member. Had his duties permitted it, the Professor would have been an invaluable asset on all the Commissions and a useful link between them. His studies have led him to a close consideration of architecture. He is a sound antiquary, and yet has the balance of mind to see that the fanatic is not always helpful to a cause. Filling the active presence of our author, this notice may perhaps serve to emphasise the importance of his able and exhaustive book, giving in so concise and handy a form the history and the ethics of the care of ancient monuments, and examining in such pellucid periods the enactments which foreign heads, wiser than our own, have seen fit to institute for the protection of what cannot be recreated, cannot be ransomed, and, when once lost, cannot be recovered.

When we come to our own country, the book is sorry reading. We should be sufficiently startled if the new-fangled Socialist, arrived at political power, should enact, like his French predecessor of 1792, "the destruction of all monuments of a kind to recall the memory of feudalism or despotic rule." But is it certain that that would tend more to their destruction than the oft-asserted claim of public utility in this country, or the present passive denial of any but proprietary rights over the monuments of antiquity—instance Crosby Hall, Carew Castle, or Thornton Chapel? "Public utility," said M. Martin in the French Parliament as early as 1841, "is not a purely material thing; national traditions, history, art itself, are they not in truth matters of public utility, just as much as bridges and arsenals and roads?" "Long memories make great peoples," said Montalembert.

The work before us is conveniently divided into

two parts, "Principles and Practice" being the first. This has fourteen short sections, following a very valuable and terse introduction. Of these perhaps those headed "Why should monuments be preserved?" "Quis custodiet ipsos custodes," "Restoration and anti-Restoration," are the most striking. In the last-mentioned, which the author discusses with a very admirable sense of detachment, he sets before us some of the difficulties of the problem and points out the fatuity of the restoration theories of Viollet-le-Duc and Sir Gilbert Scott on the one hand, and the impossibility of accepting the extreme theories of anti-restoration on the other; how the work at Dunblane and Hexham has to be accepted as reasonable, however much one may have lost by it; our author could not have foreseen the treatment to be accorded the *pulpitum* of Hexham; how, in his view, there is no excuse for the destruction which has been wrought at Iona, or for such work as the bedecking of the Chapter House at Canterbury. While pointing out, on the other hand, the salutary effect of anti-restoration agitation and literature on public opinion, he declines to accept the dictum that all ancient monuments are to be treated as dead. But this part of the subject can be carried a good deal further than the point reached by our writer, whose concluding paragraph seems to come perhaps a little prematurely.

Under other sub-headings there are some valuable remarks, with which we cordially concur, upon "Classement," as adopted in France, and its dangers. Inventorisation (may we not venture "in-listering"? for the King's English seems to need, too, recruiting) is preferred, and wisely, and the dictum laid down that "it is recognised everywhere that this inventorisation is a necessary first step in any scheme for the care and protection of monuments. One might be disposed to suggest to our Commission the first step of obtaining from the Government power to create the proper machinery for so great a work, for without such machinery and power of the purse it would take the Commission forty or fifty years to accomplish the work, by which time the usefulness of the Commission might have evaporated.

In Part II., "Monument Administration in various European Countries," we get into the heart of the author's intentions, and clearly and concisely he does his work, with side-lights upon the working, the defects and excellencies of foreign legislation. France, as in all matters of the arts, led the way—first in private enterprise and enthusiasm with the admirable and far-reaching work of Arceise de Caumont and his *Bulletin Monumental*; later with definite state organisation. "Better than all books," says a French Minister of Fine Arts, "the keeps of Coucy and of Gisors, the ramparts of Carcassonne and Avignon.—In these books of stone are found the soul of history." But there can be no doubt that French centralisation and bureaucracy have

defeated the good intentions of such French protagonists as Caumont, Victor Hugo and Montalembert. A strange and false pride of modern production and desire for superficial perfection have led the French Government architects and restorers to imagine that reproduction and fidelity are possible in every style, that their knowledge is complete, and their own taste absolute and final.

Viollet-le-Duc led the way with wholly false ideals and ends, and created a school which has, in a historic sense, wiped out the great historic monuments of France, and its heavy hand still trails across them. But it is perhaps as much the system as the sentiment which has broken down in France, and we have to learn from such absurdities as the spruce new Cité de Carcassonne and the Château de Pierrefonds that her centralised organisation is one only to be avoided. To some extent this may be due to the fact that, so far from seeking the aid of private societies and experts, the Government has shown a tendency to ignore them or look askance at their efforts.

The President of the French Society of Antiquaries has no *ex-officio* seat, as might have been expected, on the Historic Monuments Commission, precisely as we find to be the case here. It is to be noted, however, that the extremes of Government interference and absolute *laissez faire* lead, so far as the destruction of ancient monuments is concerned, to much the same goal. Probably in no two countries have the ancient monuments suffered more than in France and Wales—in France by the over attention of east-iron bureaucrats—in Wales by handing over the monuments, in the main, to the ignorant and the jobber on the general principle of the cheap and nasty.

We cannot here follow in detail the intricacies of the proceedings and laws of the various German States, each of which exercises its own jurisdiction in such matters within its own area. A good deal has happened in Germany since 1905, so much so that a new edition of the author's work is almost already called for.

Hesse Darmstadt led the way with her Monument Act of 1902, and the important right of expropriation, under definite and fixed limits and with compensatory clauses, appears to have been wholly established.

It is to be feared we may whistle in vain for any such salutary protection in this country, which is food for reflection, because the principle of expropriation by Act of Parliament is conceded when matters of so-called "practical utility," however vandalistic, are concerned.

Can we wonder? Apparent utility, however superficial, is for the many, while culture and that deeper-seated utility, which have the power of lifting the mind of man individually as a unit and collectively as a nation to a higher and nobler ideal, are for the few. But that the heaven is spreading the appointment in Great Britain of three Royal Commissions

is gratifying proof. Even Society papers, given to tickle their readers by pretty photographs (never a plan) and chatty letterspress about antiquity and dickybards, are addressing themselves seriously, if crudely, to the subject, and it can only be hoped that the too often extravagant and ill-informed views which thus find expression may not have the effect of stiffening the back of the ordinary citizen, the reverse of their well-meaning intent. Our author foresees this possibility, and has some terse remarks upon the subject.

In the light of some recent happenings, a comparison of similar events in this country and in Germany may be recorded.

The last hope of saving Crosby Hall consisted in an appeal to the Government, which was made by such influential bodies as the City Corporation, represented by the Lord Mayor in person, the London County Council, the Crosby Hall Preservation Committee, and the National Trust. The Minister appealed to, with characteristic courtesy, informed the deputation that he could do nothing; and politely hinted that they were fools for their pains, for Crosby Hall was really hardly worth them, a matter upon which the already publicly expressed and uncompromising opinion of the then President of this Institute might perhaps have been accepted.

In Bamberg, Piell's House, a noted structure of 1700 (which would thereby only just have come under the ken of the English Commission), was to be pulled down and rebuilt elsewhere. The Bamberg magistrates forbade the demolition; were appealed against and beaten. In their turn they appealed to the Minister of the Interior, who caused a report upon the case to be made by the General Conservator of Monuments, and decided that "no further opposition was to be made to the efforts of the urban authorities to preserve the ancient appearance of the city."

Again, in Nurnberg, when the Nassauer Haus was in peril, the magistrate forbade any alterations to the interior or exterior without authority. The order was appealed against, but upheld by the responsible Minister.

The limitation of the activities of the English Commission to the years preceding 1700 must be noticed with regret, especially having regard to some of the delightful red brick domestic buildings of the eighteenth century still left to us. These stand a wholesome protest against modern suburban "fuss," but being situated as they are, in or around our growing towns, are not the least in need of protection.

Professor Baldwin Brown has some very useful remarks upon the abuses of advertising and the preservation of scenery—subjects very closely allied to one another and to that claiming his chief attention. In consequence of the success attending the efforts of the admirable Society for Checking the Abuses of Public Advertising (Scapa), it cannot

be too often repeated that an Act of Parliament has recently been placed upon the Statute Book enabling local authorities to make regulating bye-laws for dealing with advertising placards; and it would thus seem that the propaganda initiated by Mr. Richardson Evans—that protagonist of hard and able work in neglected and difficult but most important causes—was making headway. Nevertheless, it is a question if the craze for publicity and advertisement, fostered by a cheap press and the stress of commercial competition, is not proceeding even faster. With motor-car advertisement invading our country lanes, and, worst of all, a rising generation being brought up with a vision blared by and accustomed to vulgarities which would have startled their grandparents, the outlook is gloomy; and not less so because even the more cultured public seem to care so little and are so hard to rouse to action.

But these Royal Commissions have it in their power to do much for a cause, than which none calls more loudly for intelligent furtherance on sober but solid and far-reaching lines. The Royal Commissions can in their turn gain much from the information collected and collated with so much industry by Professor Baldwin Brown, whose careful and strenuous work has earned the gratitude of all those to whom a higher culture makes appeal.

W. D. CAROE, F.R.S.

TUDOR HOUSES.

The Domestic Architecture of England during the Tudor Period. Illustrated by a series of Photographs and Measured Drawings of Country Mansions, Manor Houses and smaller buildings accompanied by an Historical Description. Vol. I, containing a large number of Plans and Details. By Thomas Garne, and Arthur Stratton. To be completed in Three Parts. Part II. Ed. Lond. 1908, price 2s. 2s. B. T. Batsford, 91 High Holborn, W.C.

In the able historical essay at the beginning of this book three chief causes are assigned for the remarkable activity in house-building of the period under review—the destruction of the old nobility by the Wars of the Roses, the magnificence of the Court, and the dissolution of the monasteries. The last of these was perhaps the most important: in three years, 1536 to 1539, nearly one-third of the land in the country changed hands, and many men were greatly enriched. Inevitably a large part of this land given, or granted on very easy terms, to royal favourites came into the market and was sold at relatively low prices.

This was the opportunity of moneyed men, both country and townsmen. The former, landed proprietors already, had amassed wealth by turning their lands into sheep-runs in spite of the laws against enclosures; the latter by trade and commerce. Land was then the only investment for capital, usury being strictly forbidden by law, backed by public opinion, and the restricted amount of land

hitherto available had forced men to lock their gold in coffers or turn it into that profusion of gold and silver plate which so amazed foreign visitors.

Thus a large new class of landowners was created, and with the possession of land came the necessity for building. For it must be remembered that much of the profit of a manor was payable in kind and had to be consumed on the spot; moreover, the lord himself was compelled to farm on a considerable scale, and hence must reside at least part of the year on his estate. The modest granges that sufficed for the monks were quite inadequate for the needs of the new owners, and halls and manor-houses arose on every side. In addition to the higher standard of comfort of which the plans of these houses give evidence, one is struck in many of them by the large provision of galleries and other apartments of state or parade. Wholly uncarpeted and sparsely furnished, as the inventories of the period prove them to have been, these rooms must have had an empty and somewhat chilling effect; and one imagines the owner living chiefly in his hall and parlour, and very like a shrunken kernel in his big new nutshell. The preference for north and east aspects for the best rooms was probably due to the fact that all the ideas of the day in medicine and architecture were drawn from Latin and Italian authors, and our simple forefathers failed to make allowance for the difference of climate between Italy and England.

It seems ungracious to pick holes in so excellent a book, but there is a statement in the description of Kentwell Hall, Suffolk, which is open to objection. It is said that the house "has been much modernised, while cement has been freely used on window mullions and quoins in imitation of stone, as at Seckford Hall, near Woodbridge." Now, whatever be the case at Kentwell, there is no cement at Seckford; the imitation stone there is executed in lime stucco and has every appearance of being part of the original construction, and not a modern addition.

In conclusion, it will not be unprofitable for us to try to realise what these buildings looked like when they were new, with their bricks and tiles glowing red, and their stone white from the chisel. As we see them now, and as this book shows them to us, their beauty is patent and overwhelming—how much of this beauty do they owe to the hand of the builder, and how much to the hand of time? Clearly they did not altogether please the critics of their own day, who found them pretentious, clumsy, over-windowed, and tending to effeminate luxury by the multitude of their chimneys. A later generation looked on them as barbarous, and as smug against the inflexible laws of proportion laid down by "the ancients," and it was not till the end of the eighteenth century that they began to be regarded as picturesque.

Their surroundings, also, have greatly changed. As a rule they were built close to a highway, and

often to a village, and very few, even of the most important, had parks, though in some cases the lay-out of the gardens was fairly extensive. Many old plans of important houses exist which show the tiled lands coming almost up to the walls. When the rage for parks began, in Queen Anne's reign, the village was frequently demolished and rebuilt at a respectful distance from the hall, leaving only the church, which could not be moved, on the old site.

Clearly, then, a large part of the charm of these old houses has been added to them by the lapse of time and the care of subsequent generations, and if we are to profit by the study of them it is essential that we should be able to separate those qualities in them which are inherent from those which are accidental, since, however we may deceive ourselves by picturesque drawings, we never can reproduce the patina of time.

CHARLES E. SAYER, A.A.

FOUNTS AND FONT COVERS

pp 221, 255.

To the Editor JOURNAL R.I.B.A.

SIR.—Mr. Philip A. Robson is quite right, the book should have had a sub-title "Ancient Fountains and Font Covers in English Churches." This and some other of Mr. Robson's suggestions it may be possible to carry out later, should a second edition be called for. It would be well also to introduce more measured drawings of font covers, and of such fountains as have none but architectural detail. When, however, the detail consists of foliated ornament or of figure sculpture, a good photograph reproduces the authentic touch of the old craftsman; a drawing, however good, does not. In the former you get actuality, in the latter you do not; you can trust the former; you cannot trust the latter. All the Pugin Students that ever were could not produce such records as those of the fountains at Sheenborne, Brookland, Eaton Bray, Barnack, and very many others which appear in my book. Which things I say, though with fear and trembling, in the pages of the leading journal of the architectural profession, yet with honest conviction.

Now for my own affair. I have in forward preparation a book on Bench Ends, &c. Hundreds of illustrations of fine specimens have been sent me from Somerset, Devon, and Cornwall; but very few from Norfolk and Suffolk, though they there abound. In the West Country the ornament is normally of foliage; but in East Anglia it is normally architectural. The design in the latter, too, far exceeds that of the Western bench ends; and the execution is equally superior. Here is just the case where measured drawings are wanted. I do not care to have a single measured drawing of Somerset leaves, figures, &c.; but drawings of East Anglian benches with architectural motives would be most welcome.

I may mention, as among the finest examples which I have seen, those of Fressingfield, Stowlangtoft, and Bacton, Suffolk; and Wiggenshall St. Mary the Virgin, Norfolk. Drawings or photographs should be forwarded within a month to Stafford House, Duppas Road, Croydon; or, if left at the Institute, I will call for them.

FRANCIS BOND [H.A.].

THE LATE WM. MILNER FAWCETT.

TWENTY years ago, a new-made Probationer of the Institute, I sought with some trepidation my first interview with the late Vice-President—W. M. Fawcett. Although a total stranger to him, he received me with that kindness which was the hall-mark of his character, and commenced a friendship which only endured and grew deeper till the day of his death.

As a master, we of his staff venerated him for his deep and broad knowledge of the lore of our craft, and loved him for his kindly and untiring manner of imparting it to us. He was quick to praise even the effort to improve, and the omission of that kindly appreciation, when it was not deserved, we took to heart more than other men's condemnation. He had an intimate knowledge of all the architectural treasures in the surrounding country, which made a day's outing with him a pleasure to be keenly sought after and competed for amongst us, and his delightful manner of discussing them on the spot provided the incentive to further study that the master was always so eager to encourage.

He was keen on field work, and, although so many years our senior, would often outlast the youngest and fittest of us in a long day's survey, and that with no better stay than a bread-and-cheese lunch, which might be the best obtainable in some of the lonely Fenland parishes of the diocese to which he was surveyor for so many years.

It was only characteristic of the man that when the opportunity arose he took great pains to put us in the way of commencing work for ourselves. In my own case he handed over a commission of his own and helped me to carry it out, and so laid the foundation of my practice, which for fifteen years he fostered in every way he could, although it often competed with his own.

His innate gentleness would not allow him to strive ignobly with corporations or councils who sought to lay their architecture in the cheapest market, and by his withdrawal from that sort of competition he upheld the dignity of the profession he honoured.

Courtly and learned in his practice, in his private life he went about doing good, and the good he did was far too widely spread to be known to any one individual, for "he did not advertise."

He was for many years an ardent and ideal Freemason, and carried out the true spirit of Masonry

in his art as in his life, and, now that he has joined the Grand Lodge above, he has left an inspiring record to emulate, and a memory to love.

Cambridge.

A. PAUL MACALISTER F.R.S.

William Milner Fawcett was the son of the Rev. James Fawcett, late vicar of Knaresborough, and was born at Woodhouse, near Leeds. From Leeds Grammar School he proceeded to Jesus College, Cambridge, as a foundation scholar, and graduated thirty-second Senior Optime in 1859: he subsequently became a member of the Senate. Mr. Fawcett began practice as an architect in Cambridge soon after he had taken his degree. He was elected Fellow of the Institute in 1866, and served on the Council for some years, being Vice-President for the four years 1896-1900. He was one of the honorary consulting architects of the Incorporated Society for Promoting the Enlargement, Building, and Reparation of Churches and Chapels: his address to this Society on the celebration of its ninetieth anniversary last year was published in the JOURNAL R.I.B.A. for 27 June 1908. In 1861 he was appointed County Surveyor for the county of Cambridge, and afterwards Surveyor to the Cambridge County Council, and in 1871 Diocesan Surveyor for the diocese of Ely. Three years ago he took into partnership Mr. Thomas Dinham Atkinson (A.C.), Surveyor to the Dean and Chapter of Ely. His principal works at Cambridge include:—Restoration, 1875, of the east front of Queen's; refacing of the north side of the big court, 1868; rebuilding of the President's Lodge (with an elevation modelled after that of Sawston Hall, Cambs.), 1875, and, 1868-9, the oriel of the Hall, St. Catherine's; additions to Peterhouse and Emmanuel; new buildings, begun in 1884, at King's, between the Hall and King's Lane, together with various work at other Colleges: the Cavendish and the Physiological Laboratories; new buildings in the south-west angle of the court, Pitt Press, 1893-4; C.U.B.C. boathouse, and some of the College boathouses and cricket pavilions; Perse Boys' School; Women's Training College; the police station and other county buildings; remodelling of the gaol, near Parker's Piece; Nurses' Home and other additions to the Addenbrooke Hospital; additions to the Guildhall; and the Local Examinations Syndicate's offices, 1887. A list of other works by Mr. Fawcett will be found in *The Builder* of 2nd January last. Mr. Fawcett brought out an edition of Paley's *Gothic Moldings*. He served as President of the Cambridge Antiquarian Society, and was elected a Fellow of the Society of Antiquaries in 1874. He took a prominent part in the embodiment and training of the auxiliary forces of the Crown, and during a long period was commanding officer of the headquarters companies of the Rifle Volunteers in Cambridge.

THE LATE JAMES NEALE.

JAMES NEALE, who died on the 18th January, at the age of fifty-nine, was of Leicester origin, and commenced his training in the offices of Messrs. Shenton & Baker, of that town.

During his pupilage Neale acquired a considerable amount of practical knowledge, and as a student of the local art schools (St. Kensington) he stood alone for the excellence of his draughtsmanship, and there gained several prizes. Warmly attached to ecclesiastical work and to the study of archaeology, Neale would frequently scour some of the most remote places in search of any subject of interest, working out the details with assiduousness and accuracy. It soon became apparent that he had secured the notice of several archaeologists, Sir Henry Dryden and other experts speaking in high praise of his efficiency. In 1870, at the age of nineteen, Neale came to London, having had the good fortune to become an assistant in the office of the late G. E. Street, R.A., with whom he remained for over two years. Neale became a member of the Architectural Association in 1872, and was a contributor to the early series of the *A.A. Sketch Book*; he also passed through the lower and upper schools of the Royal Academy. In 1875 Neale gained the Pugin Travelling Studentship, and the following year was awarded the Silver Medal of the R.I.B.A. He was elected an Associate of the Institute in 1875, and a Fellow in 1890; also a Fellow of the Society of Antiquaries in 1876.

On leaving Mr. Street to commence practice on his own behalf much of the first three years was spent in studying the best examples of ecclesiastical and domestic architecture, as well as making measured drawings at St. Albans Abbey. His antiquarian friends took the keenest interest in the work he was doing at St. Albans, and finally persuaded him to continue his efforts with a view to publishing his drawings. Sir Gilbert Scott, President of the Institute 1873-76, and Mr. Street, together with other members of the Council, giving him their encouragement and appreciation. *Neale's Abbey Church of St. Albans*, a laborious work, taking some seven years to accomplish, and consisting of sixty plates, was published by subscription March 1878: everything was drawn on the spot, every joint shown, and every moulding taken the real size with the greatest care and accuracy, illustrating completely almost every portion of one of our grandest churches. At a banquet given by the Royal Institute Sir Gilbert Scott said: "Mr. Neale has earned laurels at the hands of the Institute by tasks which must have cost him infinite labour... a more magnificent set of drawings I have never seen anywhere—they reflect the highest credit upon Mr. Neale's skill, zeal, and assiduity."

In the same year, under the auspices of the Kent Archaeological Society, Neale was appointed by the Dean and Chapter of Canterbury to superintend

the reparation of the wall paintings, &c., of St. Gabriel's Chapel in the crypt of the cathedral. Mr. Street, congratulating him upon his appointment, said, "They could not have employed a better man." Copies of some of his drawings of these ancient paintings were published by the Kent Archaeological Society, in the *Archæologia Cantana*; a paper on the work was also read by him before the Kent Society at their meeting at Canterbury.

In December 1877 Neale read a paper before the Institute, "Architectural Notes on St. Albans Abbey," and in January 1878 he read another paper at the annual meeting of the Leicester Architectural and Archaeological Society, of which he was an honorary member, on "The Four Periods of Gothic Architecture in St. Albans Abbey," not less than 220 drawings being exhibited at that meeting.

In practice Neale had at the age of thirty-seven carried out various works in the County of Kent, also in the City of London, at Kensington, Fulham, Earl's Court, Hampstead, Leytonstone, Upton Park, Lincolnshire, Leicestershire, Essex, Surrey, Cheshire, &c., the contracts passing through his office and hands representing a total of over £200,000. After losing a fair fortune he was successful in business, and has left to the care of executors a considerable amount of property and money.

The following are a few of Mr. Neale's works:—Houses on the beach and entrance lodge at Walmer, Kent; Ennismore Gardens, Dover; Houses at Roslyn Hill, Hampstead; St. Peter's Church, Bushey Heath, Herts; "Compton Leigh," Froggnal Gardens, Hampstead; houses at Tumbleidge Wells; several houses in Hampstead and Froggnal; cottage residence at Southwater; alterations and additions, Nos. 2 and 19 Montague Place, and No. 5 Bedford Square; improvements with enlargements, No. 54 Doughty Street, and at Shenley Hill House.

Neale was short, round, and blond; latterly his hair was quite white. His activity was remarkable. He worked all through the daylight when measuring at St. Albans, continued by candlelight, and produced wonderful drawings in the long night hours. As a personal friend, although somewhat reticent, he was most kindly disposed, hospitable, and ready to help. His very practical concern for the interests of the young architectural student, and desire to direct him in the right path, is borne eloquent witness to in his will; and it may be permitted to hope that the Council may see their way to devote the legacy (£1,000) ultimately to come to the Institute, to the foundation of a further Prize for the study and measurement of the monuments of the past still remaining with us. It would be altogether in the fitness of things that the name of James Neale should be permanently associated with a Studentship having for its object the promotion of studies such as he himself pursued with such ardour at St. Albans and elsewhere.

WM. RUSHWORTH (F.).

C. H. LÖHR (F.).

ALLIED SOCIETIES.

Devon and Exeter Architectural Society: Mr. Crocker's Presidential Address.

At the annual meeting of this Society, held on the 13th inst. at the Central Hotel, Plymouth, Mr. James Crocker, F., delivered his address as retiring President. Having referred to the occasion ten years ago when he was addressing the Society in a similar capacity to that he now held, Mr. Crocker continued:—

I was then enabled to congratulate you on a year of exceptional activity, which continued for a period, and then ran into a condition of almost unprecedented stagnation. It is no part of my privilege, even were I able, to endeavour to account for this. The expenses of a great war causing an inevitable retrenchment in the two great services, at once touched towns like yours, and were probably more far-reaching than it is possible to define. Other causes of a more or less complex nature doubtless also came into operation; but amongst them, one thing which has affected us very considerably is the abnormal increase everywhere of speculative building; for the public have never yet learnt that building is not necessarily architecture, or that there is a slight difference between a "Jerry built" house and a well-built one. But matters have reached a climax again even in this direction, as they always do; and with a little time for reflection and a general restoration or confidence, there are signs in various quarters of the lifting of the fog, and, I hope, a returning wave of prosperity.

Reviewing the year, you have the work of the Society in the report before you, and beyond ourselves, although we have lost no distinctly eminent men, we cannot forget, amongst others, Mountford, Stevenson, Stannus, and Gruning; but neither must we forget that the year has discovered at least one brilliant young practitioner in Ralph Knott.

Perhaps it might be thought that in an address of this kind, however brief, some reference should be made to the present position of the profession, and of architecture generally. The former thought divides itself under one or two headings. It is true that the services of an architect are now almost invariably called in, or rather I should say the work, whatever it may be, is carried out upon some sort of definite plan prepared by somebody; and this takes us at once to the subject of "The Architects' Registration Bill," or "Architectural Registration," to which I referred at some length on a former occasion, and which I have now advocated for many years.

I think that something more than merely "marking time" has taken place during the past decade, but the wheels of the coach run very slowly, and meanwhile there has been an addition to that ever-expanding army of those who take on architecture with an audacious flippancy, and with no necessary qualifications beyond the ability to plan four square walls and cover them with a roof. I am not going to recount to you all the evils of the present system, because you all know them, and have mostly made up your minds about them, but the extraordinary thing is the gullibility of the public. It vainly hopes for what it has no right to expect, and is disappointed because it does not get it; but I believe that if the architects of this country were to put into practice what an enormous majority of them are perfectly agreed upon they might

bring this measure off without delay. Notwithstanding the almost feverish anxiety which has been displayed within the past few years for the teaching of drawing in all its branches in our schools and colleges, and even the establishment of Chairs of Architecture, it amounts almost to a national reproach that in the particular way to which I am referring architecture is found in the condition in which it now is, and allowed to "limp along" on its own. I have spoken strongly, because I feel strongly that this official indifference is one of the gravest things we have to think of. Those of us who have to look back over more years than we can possibly look forward to will have little to gain by the passing of this Bill, but we shall, by using every legitimate effort, be doing what every corporate body is bound to do, viz., that which is for the best interests of those whom we mutually serve.

There is another subject which is constantly being pressed upon us, and that is the overcrowded state of the profession. It is a condition not singular to the profession of the architect, but it is none the less serious, and the remedy, if there be one, ought to be discovered. This state of things exists from two or three causes—one is that of which I have been complaining and which the Registration Bill, through closing the open door, would partially cure. Another is, the great facilities granted for learning drawing and architecture in the various schools and colleges—creating draughtsmen by machinery; and a third evil, if I may say so, is to be attributed to the natural but oftentimes disastrous ambition on the part of parents to make their boys what they were never destined for. There is no doubt that a large number of boys enter the ranks of architecture who would be much better in a trade or business, for they only get intermittent employment, and when it is too late find out that then life has been a mistake. This serious state of things was referred to at some length by the President of the Architectural Association in his Address in October last, when he stated that some members had sent in their resignation through inability to meet their subscriptions.

I should like also to take this opportunity of making a suggestion or two, more especially to the younger members of our Society, for I have no business to address others on the matter. I refer to the subjects of sketching and tradition. As to the former, I have for years felt and constantly expressed a fear that there is great risk of its being neglected in favour of the camera; and although I hope I shall shock no one's sensibilities, let me say that the one can never take the place of the other without serious loss to the student.

My thought on the second subject is a plea for the carrying on of the traditions of a county or a district both in the matter of materials and treatment. I think this a sound principle to work upon, and although the two counties we embrace are not so rich as some others in examples left us, we need proceed in no uncertainty. We cannot take a walk or a short journey without noting the incongruities arising from a transgression of this principle.

And now, may I be permitted to make a few observations upon the position of architecture as we find it. In doing so, one is met with the initial difficulty which you will all appreciate—namely that it requires the perspective of years to fairly judge of the past; and that we have to hand on our works to those who come after us without final answer, and with the note of interrogation still standing. This is only expressing

a platitude, but nevertheless he who may read, and it is impossible to look upon the brilliant work of the past fifteen or twenty years without feeling that we are living in a great age and probably making a history according to its kind almost, if not quite, equal to that handed down to us through the Middle Ages, and by the influence of Inigo Jones and Wren. I am aware that this is a bold speculation which I must leave to your better judgment.

But what a revolution has taken place within the past sixty or seventy years! The Gothic had spent itself, as it has now done again, and the later Renaissance, in the midst of great wealth, had reached a period of decadence which found its worst expression in the hideous country mansion. Ecclesiastical restoration was invariably ecclesiastical desecration; and early Nonconformist architecture, in its struggles for existence *in any form*, has been aptly described as "the Barnie Order, with the inside like a sawpit, and galleries all round."

We live now, however, in times of greater inspiration: times in which the public taste is alert to the things that are best, and if not always technically safe, is, mostly, easily guided; times of great public and private ambition in which there is some joy in living, and in which we may feel that we have some opportunities, here and there, of not merely working for a living but leaving a memorial; and it in the fulfilment of this object we constantly look back and live in the company of those who have gone before us, maintaining the traditions they handed down to us, and gathering up all that is best in their works and welding them with our own ideals, we shall by so doing best realise that which is the highest object of the artist—not the mere making of money, although I hold no Quixotic notions about that, nor the winning of popularity if it is to reach us through the avenues of vulgarity, but the enhancement of the art we have espoused.

MINUTES. VIII.

At the Eighth General Meeting (Ordinary) of the Session 1908-09, held Monday, 15th February 1909, at 8 p.m.: Present: Mr. Edwin T. Hall, *Vice-President*, in the Chair: 37 Fellows (including 15 members of the Council, 42 Associates including 2 members of the Council, 1 Hon. Associate, and numerous visitors)—the Minutes of the Meeting held 1st February 1909 (*ante* p. 255), were taken as read and signed as correct.

The decease was announced of Edward Augustus Ould, of Liverpool, *Fellow*, elected 1900.

The following members attending for the first time since their election were formally admitted by the Chairman: viz. Percy Evelyn Curley, *Fellow*; Francis William Langman, *Associate*.

A Paper by Mr. H. V. Lauchester, *Telluric Towns and Country: Some Aspects of Town Planning*, having been read by the author and illustrated by lantern views, a discussion ensued, and a vote of thanks to Mr. Lauchester, and to Mr. E. A. Rickards for his illustrative sketches, was passed by acclamation.

The proceedings closed and the Meeting separated at 10.10 p.m.



A GOODLY HERITAGE. By PAUL WATERHOUSE, M.A. Oxon [F.]

Read before the Edinburgh Architectural Association, 13th January 1909.

Hereditas mea preclara est mihi.

IT is at least probable, for reasons which I will afterwards explain, that no one in the present company is familiar with a little book called *Architecture and the Angels*, written by John Pargiter. The book is the product—the by-product I might say—of an unusual mind, and the author is such as I will show him to be in the conversation to which I will ask you of your kind patience to listen. Will you imagine first the setting of that conversation. A modest house of rather prim Early Victorian presence, with a white stucco front, an Ionic porch and a balustraded parapet, stands some twenty miles from London, among the region of green fields which still prevails beyond the fringe of the Northern suburbs. Behind the house is a square enclosed garden, bounded by a high and weather-beaten brick wall, and at the far end of the garden walk, which is lined with herbaceous flowers, is an inconspicuous green door in the wall, leading, you would suppose, to a potting-shed. Open the door and you find a surprise. You are in a little summer-house whose western and southern windows look out upon a wide and fair landscape. Spreading cornfields are its middle distance, and its horizon is a soft ridge of the wooded Chiltern Hills.

It is in that summer-house that you will find John Pargiter, with his pipe and his book. His book, or perhaps his books, for he generally has two, being never sure (so he tells me) how long his mood even for a favourite volume will last.

It was on a Sunday morning that I first found him there, and I concluded from the day of the discovery that he was one of those men of no settled creed who would prefer reading and home meditations to the “assembling together” of worshippers. I suggested this, but he rounded on me at once. “You know my tastes,” he said; “do you honestly think that I could be aware of the existence in England of a society nearly two thousand years old without being an active member of that society?”

I have had good reason since to know that the causes which made him and kept him a Churchman were much more than archaeological, but the answer was characteristic of the man; and I veritably believe that even if the Christian Church had not its moral claim, the historic would have been enough to seize and hold him.

I once asked him why he was not a Freemason; his answer was a longer one than I can trouble you with here, especially as it has little to do with our present subject.

"You architects," he said, on the first occasion when I had any serious talk with him, "don't in the least realise your privileges. It is almost horrible to me to think of the insignificant way in which your young men glide into what they sometimes call 'the Profession.' If I had any power in the matter there should be a ceremony of initiation such as should fill their young souls with wholesome awe. Just think of it," he went on; "you have a craft whose historical continuity is as old as history itself: whose actual existence reaches back to the days of mythology, whose manifest products in Crete date from the generation next to Zeus: and yet your neophytes without ceremony or rite join the brotherhood of ancients with as little thought on their part or yours as if they were merely accepting election to a local hockey club."

I ventured to suggest that after all we had examinations in architecture, followed on election to the Institute by a little ritual in the way of a ceremonious handshake from the President, and further (this I said against my truer nature) that our present age was not very fond of ceremonies—had outgrown them in fact.

Pargiter was pained. "How can we outgrow ceremonies?" he said. "A ceremony can be too big when it is new, but never when it is old. Don't you realise that every year which goes by adds to the dignity and mystery of your ancient craft, so that the force of the ceremony which you so strangely neglect would be greater now than ever? That bashful handshake between a gentleman in an office coat and a youth in an office jacket is a miserable anti-climax alongside of the vision which I have of a mystic formula, a solemn oath, and symbolic robes."

But I must not weary you with a desultory record of Pargiter's conversations: I want to tell you of a particular talk on a particular subject.

It was again on a Sunday (afternoon this time), and I had taken with me my friend Harper. Harper is a useful ally in a talk with Pargiter, being willing, for purposes of argument, to offer himself as an exponent of the purely materialist and prosaic attitude. He is, I may say, an architect, which Pargiter is not, and he is moreover a man of as refined a mind as you will readily discover; yet, with the intention of drawing our idealist friend and of egging him on to those flights of fancy or vision which need the impetus of opposition, he is willing with some show of sincerity to play the part of *advocatus diaboli*.

We found Pargiter muttering and ready for the fray. He had his usual two books with him: both lay open upon the summer-house table: as far as I could see one was the index volume of St. Thomas Aquinas, the other was Du Maurier's *Peter Ibbetson*,[†] and I have wondered since by which of many possible trains of thought he had stumbled on to the subject of which he talked to us that day.

He burst at once in a question. "What," said he, "is in your opinion the most enduring formula of human expression? Cast your memory along the centuries of European civilisation, include in your survey the whole field of man's mental occupation, and tell me if you can what conventional utterance, either of speech or art, has been most enduring and most satisfying."

Harper, I saw, was getting restive already. He wanted a talk on architecture, and was afraid that the day was to be squandered in generalities, but he answered meekly and properly enough that he supposed the rules of chess would fairly answer the description.

"Assuming," said he, "that chess reached Europe in the year 750 A.D., and that it had enjoyed a prestige of, let us say, a thousand years in pre-European society, we may fairly look

[†] A purely unnecessary allusion to the Institute's dignity. I ought, of course, to have told him about the gold chain I had. — P. W.

[‡] A strange pair, representing, as it seems, Dogma at its highest and Fancy at its best. — P. W.

upon it as being the collection of conventional ideas which for longevity and persistent popularity bears undisputed palm."

"A very good answer," said Pargiter: "I had overlooked chess, which I am afraid is a serious and successful rival to the thing I have my eye on. Let us bar games (for you must put draughts with chess as being equally ancient: let us bar games, and let me put my question again."

It was my turn to take up the conversation, so I suggested religious ritual.

"Yes," said Pargiter. "I thought you would suggest that, and you are right to suggest it. The most holy words and some most sacred actions of religion are indeed so constant in their iteration and so endlessly satisfying that we must always consider them as typical of that continuity between generation and generation, which after all is more than half of what we mean by the Communion of Saints. The words and deeds of the celebrant in the Mass: the folded palms and bent knees of a little child at prayer: the phrase and uplifted hand of one who bestows a blessing, are all instances of the tendency in mankind to be satisfied in matters of grave importance with unchanging adherence to an unchanging rule. But since in these cases the love of fixed tradition is at least allied to a sense of the immutable stability of God and His ordinances, and since therefore they owe their lack of vicissitude to an impulse, if not an actual sanction, which is from outside, from above, I will put my question again, asking you to leave out of consideration the field of religion."

Harper took his innings and was very bold—just what Pargiter wanted. "I can assert," he said—"for though you wouldn't expect it of an architect, I have given some thought to these generalities—I can assert that if you bar religion and games there is only one formula of human expression which is abiding. It is no form of speech in any given language, for every country has its language, every district its dialect, every age its change of pronunciation. Again, no literary conceits are abiding, even though they pass from one language to another. The hexameter, though you might say it runs from Homer to Longfellow, does not really do so; for if the author of *The Odyssey* were brought to earth again, he would not recognise *Evangelium* as being in his own metre, scansion by accent being entirely different from scansion by syllable and quantity.* Geometry and mathematics of course are not changeable by progressive generations, but then their unchangeableness lies in the nature of things, and is not subject to man's genius, and they cannot therefore be classed as conventional formula. No; the only permanent, satisfying, and unchanging output of man's arbitrary brain lies in the region of logic, and is that ancient, indispensable, and indisputable thing called by philosophers the Syllogism, the form by which men in all ages since Aristotle have couched the process of deductive conclusion."

Harper brought his climax out with quiet conviction, and proceeded to fill his pipe.

Pargiter, momentarily taken aback by the beginning of the outburst, smiled as he saw the end coming. "Your syllogism," he said, "is no convention and no product. It lies outside man's field of invention as much as do mathematics, and I am still free, unquenched, to put my question again. I ask you once more, but in different terms, is there any formula of human expression or group of connected formulae in the world of letters, speech, action, or art, which has been evolved by human process, fixed by human judgment, and used for, let us say, two thousand years with satisfaction to the users and to their critics? My friends, there is such a conventional human utterance, and it belongs to you architects. It is that trio, or rather quintette, of graceful columnar designs which we call in two words *The Orders*—the sturdy

* Harper was, to be sure, quite wrong in dealing thus lightly with the very difficult subject of the boundaries and distinctions between syllabic, quantitative, and accentual

prosody. The hexameter is really quite astonishingly immortal, though Longfellow did not understand the business.—P. W.

Doric with his less authentic companion the Tuscan, the chaste Ionic, the luxurious Corinthian, and her kinswoman, the Composite."

"Well," said Harper, "you have certainly done honour to our old friends, but have you not possibly overdone it? It is quite true, for example, that the entrance to Euston Station is to this day blocked by a structure of doubtful utility which quite creditably resembles a Propylæum of the fifth century B.C.; but aren't you drawing conclusions rather wildly when you suggest that this and similar archaeological freaks are evidence of a continuous worship of a long obsolete method of construction?"

Pargiter smiled very gently, but with the look of a man bringing up his reserves. The attack, I suppose, was just of the kind he anticipated.

"My dear Harper," he said, "that engine of logic which you thrust at me just now as the one survival among human conventions is, I fear, somewhat rusty in your keeping. In the first place, I won't have a word said against the Euston portico. It is one of the three or four things in London to which I do a kind of homage. That a railway company should in our own time, or at least in our fathers' time, have committed that great-hearted indiscretion, and should have reared in what is now a back street that pure piece of Classic art, is a thing to be grateful for in a rather devout kind of way. But I shouldn't myself have taken that example as any proof, nor do I mean to suggest, as you think, that there has been a continuous worship of the Orders. Do you realise?"—and here Pargiter took off his hat, not merely I think to cool his head— "do you realise that things which are worshipped do not depend on worship for their existence and continuance? I mean to put it to you, quite deliberately and without the bias of enthusiasm, that, leaving out of account some years of evolution, the Orders have prevailed as a force for two thousand years, and that they prevail now as they never prevailed before."

Harper rushed in eagerly with his reply, but he spoke quite coolly and steadily as a man sure of his ground, for this time he was in real earnest. "My good Pargiter," he said, "you will forgive my reminding you that you are not an architect, and that your eagerness to establish *theories* of architecture sometimes makes you rather ignore the *facts* of architectural history. The Orders are enjoying, it is true, a vogue at the present time: we are going through a revival which happens to favour their use. In fact, to put the matter clearly, this weary and uninventive age of ours is at the moment engaged, for lack of original ideas, in several revivals, each of which is in reality the renaissance of an art which was at its time a renaissance itself. We are building in the Palladian, the Wren, the Louis Seize, the Jacobean methods, even sometimes in the manner of the Italian Cinquecento, and as each of these styles was either a direct attempt at the resuscitation of Roman work or a derivative from some predecessor's attempts at the same enterprise, it is at least natural—isn't it?—that the Orders should be among us still. What is more, I think if you will use your eyes among the works of some of our greater architects you will realise that their worship of the sacred Orders is not quite so complete as you might imagine. Little tricks are being played with the details, the enrichments, and even the proportions of the Doric, Ionic and Corinthian columns and entablatures, which are evidence that we are not wholly satisfied with your three Graces, nor inclined to let them domineer over us as they domineered over some of our predecessors."

He paused for breath, but Pargiter let him go on.

"There is no accounting for the strength of revivals in architecture. They are the subjects of whim or caprice, and are not to be taken as evidence of any deliberate impetus in the architectural conscience of the country. No, Pargiter, you can't make out a case. The Orders, a Greek invention, were altered by the Romans, who thereby showed, as indeed the Greeks had before them, that there was no finality about their precious proportions: they survived in the hands of a not too artistic nation for a respectable period of a few hundred years,

but they fell all to pieces like broken idols when the centuries of Christian ecclesiastical architecture supervened."

Harper paused again, and was again allowed to continue.

"Byzantine clumsiness on the one hand and the slender grace which we call Gothic on the other finally drove the Orders from the field of living art. The fifteenth century, with its artificial affectation of Classicism, brought them back, and in one place or another they have appeared and reappeared, but with so little real hold on the true craftsmen of any age or nation that even a craze like the Gothic revival was enough to keep them in the background, and that even our present epoch—the most servile in its efforts at unimaginative copying—cannot bring itself to make use of them without frequent alterations."

Pargiter took this very quietly, and at the end said, "Hadh't we better finish this talk under the big aspen in the north meadow?" I think, perhaps, he thought that we should take wider views in the open air, and indeed that aspen tree has sometimes seemed to me the kind of shelter suitable to a Socratic dialogue.

So we walked across the grass together, and by common unspoken consent refrained from argument till we were all sitting or lying in the shade of the big tree.

Then Pargiter began. "Harper," he said, "I hardly know how to answer you without seeming to be trying to score points off you. There are so many things in what you have just said that seem to me to count on my side of the argument rather than on your own. Let me ask, do you know anything about Wood of Bath?" Harper answered, of course, that he was very well aware of the existence in the eighteenth century of that Palladian expert. "Then have you ever read his book called *The Plagiarism of the Heathen Detected*," or something of that kind? It is, perhaps, not very likely that you have, for I have never seen a copy outside the British Museum."

We both admitted our ignorance of the volume. "It is," said our friend, "what you would call an unreasonable book—an attempt to prove that the Orders, so far from being the invention of the Romans and Greeks, were in reality embodied in the Divine instructions given to the Jews. A similar attempt has, I believe, been made in more recent times. Historically the theory gets no support from facts, but its value in an unhistoric sense (and we ought to remember that historic facts are not the only kind of facts that are valuable), its value, I say, lies in the evidence which it gives of an overwhelming reverence in the author for his subject. Harper," said Pargiter, turning abruptly to him, "do you remember the first time when you had a chance of making use of one of the Orders on anything of a large and important scale?"

"I do," said Harper: "it was on a bank in Dunstable."

"Now can you look me full in the face and say that you did not feel a thrilling pride in the privilege of handling for your own use so ancient and honourable a means of expression? You may be flippant about it; you will tell me, perhaps, that you merely used the Order because the old fogies at headquarters in Threadneedle Street made a point of having their building tricked out in the style which they have for fifty years and more consistently regarded as the respectable architectural livery of their buildings. But I know your feelings better than that. You positively glowed all over with the pleasure and pride of that bit of archaeology, but it was not really archaeology at all: and what made you glow was something deeper and more subtle: it was, however little you may acknowledge it, the sense—but I will tell you later what it was."

Harper intervened, he shook hands with Pargiter in a sheepish sort of way, and it seemed to me that his eyes were rather unduly bright as he spoke.

* Its real title is *The Origin of Building, or the Plagiarism of the Heathens Detected*, folio, Bath 1741.

All he said was "Quite right, quite right: I was a bit conceited about those Ionics."

Pargiter returned the handgrip, and said, "You won't mind my now turning over that argument of yours down there in the summer-house. You know you tried to make me believe, or rather you tried to pretend that you believed, that our tolerance of the Orders in modern use was primarily due to the fact that, our invention being exhausted, we are now practising revivals of three or four previous revivals, all of which were based on Roman art. It seems to me that you architects, for modest men, are the most humbly modest in your assumptions. You think of yourselves as gods, controllers, creators, directors, capable of settling by your nod, or at least by your united vote, the course of the architecture of the age. Your very explanation that the tendency to revival is due to a present lack of imaginative invention is no real sign of modesty. It implies that it is merely owing to some temporary lapse of vigour on the part of your excellencies that a re-issue of some back numbers is permitted to take the place of your usual supply of seasonable novelties. My dear Harper, that is perfect nonsense, and your inner being knows it is. If you admit that there have been any architects at all worthy of the name during the last three centuries in England I will ask you a simple question."

"Of course we grant that," we answered both together.

"Then here is my question. Choose out six names of architects from that period—six men of eminence and real worth (for there must have been at least six good men in all that time), and, having chosen your names, tell me how much any of these men have founded their title to honour upon personal powers of invention in architecture or personal pioneering in heading a revival. You will probably answer (being yourselves architects, not 'men in the street' or journalists) that in invention these great men have wisely done little, but that at least three out of your six have shown conspicuous vigour in leading a renaissance, whether Gothic or Classic. But I think you will find if you analyse even these cases that there was something more (or dare I say something less?) in the actions of these men than individuality or originaive force. A fleet can't cross the seas with every prow abreast, but the ships are travelling in company although one here and there is ahead of the others. These men set sail with others, and, what is more, the wind was blowing before they weighed anchor. I don't want to pursue this metaphor. You two men will know what I mean well enough, for we have talked about Sir Christopher Wren and his theory of the Geist or spirit of the age before: but what I believe we might realise as a result of this conversation is that we are all very apt in thinking and theorising about architecture to attribute to architects a spontaneity which is not really theirs."

"Oh, come," said Harper, whose balance and fighting powers were by this time restored, "I see where you are leading us to: you are going to tell us that architecture is a great irresistible force that moves incessantly along in a course of its own choosing, and that the architect has nothing to do but to accept an order from a client, to draw out the first idea that comes into his head on strictly traditional lines, to recognise that design as inevitable, to see that the builder does his duty, to pocket his five per cent., and after having repeated this automatic process for twenty-five or thirty years to expect the honour due to a great artist."

We all laughed together, and Pargiter went on.

"Your clever bit of fooling, Harper, is marvellously near what I believe to be the truth: only it all depends upon the meaning of the word architect. If by architect you mean any man who has a brass plate on his door and five letters after his name, then your jest remains a jest. But if by the word you mean, as I do, a man who besides certain agilities of pencil and brain is *educated* in architecture historically, scientifically, and sentimentally (I can't think just now of a better word), then your words of joke are words of truth, except that even the truest architect will not necessarily be satisfied with his first essay at any design.

You see I use the word *design* still, and I mean it in its fullest sense, but I believe we shall really find our proper explanation of the architect's position in the word stewards. It is required of stewards that a man be found faithful. Faith then has its place. The true architect in fact is a faithful steward; a man can't be a steward unless something definite is committed to his keeping, nor can he be faithful without a creed to which he may give his adherence. Therefore a man is not an architect until he knows in the most thorough and intimate sense the good thing which has been committed to him—and the process of learning is often a very long one and very slow. Some men can give no account of their stewardship simply because they have never known themselves stewards. When we come to look at architecture and architects in this fundamental way we do not get any help from the analogy of the other arts. They have indeed their traditions, revered and holy traditions, but in no kind of sense are they bound up in what for the paucity of language we sometimes call conventionality in the way in which architects are so bound. Do you remember what you said just now about the liberties which modern architects take with the Orders? The very fact that we call them liberties and know them for such is a proof of our faith to the true type. You recall Plato's doctrine of ideas? He considers that all the things we see and touch and know by sense are but manifestations of original types which are deposited so to speak in a world other than ours, the world of realities. There could be no better illustration of Plato's theory than the Orders. The things we design or carve or build as practical presentments of the Orders are merely phenomena, so to speak, whose value and essence lies in 'the pattern laid up.' The abstract types of the Doric, Ionic and Corinthian Orders would, if every extant example were destroyed and every illustration too, be still a reality in the very truest sense of the word real. And if the architects of the day trifle with these things—not necessarily out of frivolity, but sometimes for faithful and good reasons—they do not thereby in any sense blur the reality of the type. Their very variations only have a meaning by reference to the type. The Orders are still supreme. What I said just now about excellence in architecture being parallel with excellence in degree of education amounts to this, if you look at it properly, that the more a man is educated the more readily will he obey—the more naturally will he obey—the tradition of which he is the depository, and thus the more will he appear to be the slave, or rather the master, of his art. For obedience is not slavery. Do we not find in other walks of life beside architecture that the law of liberty is nothing other than the law of complete obedience? And one of the glories of obedience is that it brings with it brotherhood among those who obey. Your happiness in the Dunstable Ionics was the happiness of brotherhood with many great ones who have obeyed before your time."

Harper asked if he might say a word here. "Suppose," he said to Pargiter, "that we accept your theory that the laws of the Orders are a kind of creed, and that true architecture consists in quite humbly and without personal initiation acting as a sort of priest of the mysteries—repeating the ritual and exposing from time to time the objects of veneration—suppose we grant all this as applicable to the present age, what will you have to say of those periods of architecture which have no connection with the Orders at all: and what can you say of the Romans and Greeks, who had to invent, or at least to codify, what we are now to accept as inevitable, unalterable, sacred, and, if I understand you rightly, *eternal*?"

Pargiter really seemed a little baffled, and suggested that as the sun had gone in we might return to the summer-house. This would bring him back, he said, to his own arm-chair, and he could refill his pipe: also, he frankly admitted, he would like a few minutes of thought. So back we went.

"Those questions of yours," he said, "are not new to my mind. I sometimes think when we are up against a puzzle of that kind that the true answer lies, as do the answers to some religious questions, in the retention of a respectful ignorance, an admission that we cannot

yet understand. Architecture is so big a thing and so noble, so far above the grip of everyday comprehension, that there may well be heights and depths in its *cosmos* which we cannot plumb. In the first place, I am going to admit to you that when I speak and think of architecture I quite deliberately and perhaps quite wrongly limit myself to European experience. I am not altogether ready to systematise in my architectural philosophy the Oriental styles of to-day, or the ancient Egyptian and Assyrian, but it is worth while to note at this point that we have in Moslem architecture an example of adherence to type which in one sense outrivals man's adherence to the Classic Orders. Then, to touch your difficulty about the non-Classic periods of art over which you may contend the Orders have no appeal, I admit that even in an age that clings most closely to academic Classicism there must of necessity be going on a vast amount of building, rural, domestic, utilitarian, in which the influence of Classic art seems -- I only say seems -- to have no play whatever. That the Gothic centuries stand outside the pale of the Classic tradition is at least possible, but I am not quite sure even of that. The whole course of the Romanesque styles, out of which the Mediæval methods were born, is so intimately bound up with the traditions of Classic Roman work that it is very difficult to say of any given epoch that in it Roman tradition was dead. But if you grant that it died and was buried, the restoration of Classic supremacy in later ages only becomes in a sense more marvellous."

Pargiter halted, and said, "Would you mind if I made a digression?" We assented, of course, and he went on. "I was reminded of this strange all-conquering supremacy of the Orders by a passage which I found the other day in Lorenzo Valla's book on the Latin language. Valla lived in the middle of the fifteenth century, and he wrote as an Italian proud of the fact that the tongue of ancient Rome was in his day supreme as the speech of cultivated Europe. And this is how he expressed his boast: 'Great is the sanctity, I had almost said the divinity, of the Latin tongue. For we find it cherished through many centuries among strangers, among barbarians, even among the enemies of Rome, so that we Romans, so far from mourning its decay, rejoice openly in the hearing of the whole world at its survival. Rome we have lost, gone is Rome's State, and dead her Empire, perishing rather by the force of ages than by the fault of her sons. Nevertheless, by virtue of this more glorious empire of language we rule to-day in no small tract of the world. Italy is ours, and Gaul and Spain, Germany, Pannonia, Dalmatia, and a host of other nations. For wherever the tongue of the Romans rules, there is the dominion of Rome.' A modern Valla might, if he would, make the same boast to-day -- the same but infinitely wider. It would be for Roman architecture, not for Roman language, that he would claim dominion and sanctity -- the word used is no less than *sacramentum* -- and for the boundaries of its empire he would cite not a mere group of European States but furthest Africa, remote Australia, and that vast American continent of whose very existence the older writer never knew. In fact, the wonder of this overwhelming *imperium* has become by its very vastness and continuity less wonderful. We have become accustomed to it as to the marvel of the constellations at night. This being so, it is, I admit, difficult to contemplate the periods in which the Orders were ignored (or appeared so to be), and still more difficult to visualise an epoch in which they were in the making. The first I can tolerate in imagination as cloudy nights, so to speak, in which the stars were obscured though always existent -- or perhaps, among very ardent Gothic friends, as moonlight nights in which they were dimmed by greater light. But what of a heaven in the making! What of constellations slowly taking shape! of man helping in the outline of Orion or advising on the curve of the Great Bear's tail! It baffles mind. The thought of ages in which the Orders were suppressed or ignored is to me embarrassing; but your spectacle of a world in which the Orders sprang to life, of an age that begot them, so to speak, is still more upsetting to my powers of contemplation,

is, in fact, more hard to realise. May I put the affair before you in another way? Conceive yourselves to be intelligent and enthusiastic architects, well trained, and differing only from the well-educated craftsmen that you are by a certain cutting short of your historic knowledge. Imagine, if you please, that by some loss of documents and evidences you have been deprived of all knowledge of the history of the world earlier than 1600 A.D. Then apply yourselves to the very interesting question, What is the origin of these forms which so insistently prevail over our thought as architects? For my own part, if I were driven to conjecture I would as soon adopt the attitude of John Wood of Bath as any other. To put it quite plainly, revelation seems as easy a solution as any theory of gradual growth."

We both muttered some respectful ejaculation of astonished disbelief. Pargiter answered us quite undisturbed.

"I am not," said he, "indulging in superstition. I am merely wanting to make clear to you my matter-of-fact opinion that what appears to be the actual historic record of events in the birth of the Orders is much harder of belief than any simple story of Divine interference. That a process subject for many years to evolution should have been crystallised into quiescent permanence is a phenomenon so entirely contrary to human experience that revelation as it is understood in the terminology of religion is infinitely easier of credence. In other words, we are face to face with one of the very greatest marvels in the marvellous history of man."

"I will grant your final conclusion," said Harper, "but don't you think we are in danger of forgetting that even if we were all Classic architects of the severer school we should still not find our whole time and thought occupied by the Orders? There is a good deal of design done even in the monumental manner which does not involve any reproduction of the Ionic, Doric, or Corinthian columns."

"Ah," said our friend, "I thought one of you would say that, but I am sorry you have said it. I am afraid it proves that you do not yet realise the force of the precious thing committed to you. Did you never hear the story of the sea captain and the horse? A captain in the merchant service was upbraided by his employers because in his account for out-of-pocket expenses rendered at the close of a voyage he charged a guinea for a riding horse at nearly every place where his ship touched land. He was told that the charge must not again occur, and at the next presentation of accounts no item for horse exercise appeared. 'We are glad,' said the owners of the vessel, 'that in your last accounts we no longer see that horse.' 'Quite so, gentlemen,' said the captain aloud; aside he added, 'They don't see him, but he is there right enough. I've spread him.' The Orders, I think," said Pargiter, "are like that captain's horse. You may build a building with never a column nor pilaster, without even a cornice of the strictly normal type, and yet if that building is Classical in any genuine sense of the word the Orders will be there. They will be there in countless details of proportion, there in many a moulding, there, if in no other way, because of a certain grace which can only flourish in the architecture of a man whose training has been wrought under their influence. Even in the days when the Gothic revival was still warm with some of its original fire, there were, I am told, offices, good Gothic offices, in London where the pupils were made to take their turn at delineation of the Doric, Ionic, and Corinthian, and their two less statutory sisters, the Tuscan and the Composite. That even upon the best Gothic work of these men that study had good effect we cannot doubt, in spite of a certain passage in a book which I do not name, for the very honour in which I hold its great writer."

Harper, wishing to be a little flippant, cut in with the suggestion that Batty Langley showed what could be done by the application of Classical ordinance to Gothic forms.

Pargiter, unexpectedly, rather welcomed the diversion.

"It was nice of you," he said, "to mention Batty Langley. I haven't heard his name

recalled among architects for many years, and was beginning to think that his outlandish whim, and the strange attitude of mind that brought it forth, were forgotten. What an odd conceit it was to attempt to tie up the elements of Gothic columniation into a set of spurious Orders: most strange indeed! It was like—what shall we say?”

I suggested that it might be compared with an attempt to cut a bale of Harris tweed into a dress suit.

Pargiter accepted the simile. “That is right,” he said, “quite right, and gives the entire clue to the situation. No good tailor would do such a thing, and yet you will find that the tailor who will best make you a shooting jacket out of your bit of tweed is an expert in the making of those very dress clothes whose cut would be so unsuitable to your present purposes. You will explain, I know, that in these days of division of labour no “cutter” engaged on evening suits would touch Norfolk jackets. But I will be bold to maintain that this need not be so, and that our illustration may stand. The sum of it all, if you will let me go on preaching, the sum of our talk is this. The Orders are here, an ancient traditional survival, a means of expression, a force, a power, an influence, and you architects, whether you like it or not, are their pledged custodians. You may, in the exercise of what you think is free will, or private judgment, or individual taste, elect to be bad stewards, but the stewardship is not the less there, and it *is* required of a steward that a man be found faithful. Not every architect who departs, in his use of the Orders, from the perfect pattern is a bad steward; a change of proportion, a change of detail, may serve not only the purpose of the designer, but also the honour of the very Order that is thus varied, so long as the architect in his work and his critics in their estimate of it have before their eyes and in their memories the real thing to which it is related. A man, for example, wants to express great slenderness in some design; he takes the slender Corinthian and adds a diameter to its usual height; thereby he gets his result; but only because his eyes and the eyes of his educated contemporaries are filled with the vision of the normal proportions. Ours is an age that hates—I speak of the unhappy majority of our fellow-citizens—that hates dogma, almost hates doctrine, despises forms, and affects to think little of creeds, of ceremonies, and of those conventions which in all ages have been the shrines of truth: and yet this free-thinking nonconforming age is in its architecture held in bondage by a set of forms whose supremacy none ventures to dispute. This strange thing, a strange and beautiful thing, has surely come about for our learning. That stewardship of yours is indeed a goodly heritage: *præclara hereditas*, as the Vulgate more brilliantly puts it. You are, in a form-neglecting generation, the custodians of imperishable and mystic form. ‘Hold fast the form’ was said by a man so great that he called himself the least of the apostles. Hold fast the form, I say, for Heaven only knows what that form may contain. We live in a world of forms, and no form is without its inner essence. Your anti-creed man will come at you with the text ‘The letter killeth,’ but you may remind him that without the letter he wouldn’t even have that text. The letter is no enemy of the spirit, but rather its faithful guardian. Form is not everything, but in this world it comprehends everything, and you architects are the high priests of form.”

We took leave of Pargiter and walked home together, at first in silence. I rather expected a suggestion from Harper that the discussion had been carried on to an unnecessarily high plane. As he said nothing, I asked him at last:

“What did you think of Pargiter to-day?”

He answered: “I don’t quite know yet, for I haven’t let my mind settle. Have you got Pargiter’s book?”

“Yes,” I said, “I have a copy of *Architecture and the Angels* at home; as we pass my house I will get it for you.”

He came in with me, took the book and looked at the title and headings of the chapters

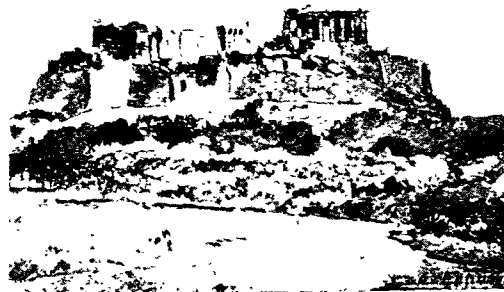
"*Architecture and the Angels: an Essay on the Divinity of Form.* Chapter I. The Measure of the Man, that is, of the Angel. Chapter II. He that built all things is God. Chapter III. St. Sebastian and the Column: a Sermon on Mantegna's Picture. Chapter IV. The Quattuor Coronati." These were the things that met his eye. With the book I handed him a review that appeared shortly after its publication, in which the author was described as undoubtedly mad.

"Would you mind my keeping these a few days?" said Harper. I consented.

A fortnight later I met him on the platform at Euston and asked him what he thought. "I should like to let you know," he said, "that I think Pargiter is very nearly right, but I cannot be sure whether I am sorry I ever became an architect or overwhelmingly glad. I think the latter."

It is from *Architecture and the Angels* that I borrow the illustration which makes the heading of this paper. "You will discover in it," said Pargiter, "perhaps more than appears at first sight. You will, for example, if you know your Bible, recognise by the number of its columns to whom the central *tempietto* is dedicated." A bystander who did know his Bible, and who consequently identified also the text at the top, asked Pargiter if he did not think it a little irreverent to mingle so divine an allusion with a secular subject. Pargiter first muttered fiercely something about the impossibility of keeping either divine allusions out of architecture or architectural allusions out of divinity, but then recovering himself, he turned gently to his objector and said: "I quite see what you mean. Profanity, you feel, consists in looking downward too suddenly from a heavenly subject to an earthly one. If I have done that I have been profane. But the text was the last thing put on to the drawing: and there is no harm, is there, in looking, however suddenly, upward?" The drawing, I may add, was made from a sketch of Pargiter's (or was it from a sketch of mine?) by Mr. L. S. Sullivan.

At the beginning, kind hearers, I promised to tell you why I doubted that anyone here had read Pargiter's book. You will by this time know that there is no such man as Pargiter, no such book, and not even any Harper.



STYLE IN ARCHITECTURE

By S. D. ADSHLAP, F.R.S.

Read before the Leeds and Yorkshire Architectural Society, 10th December 1908.

I.

THE word "style" used in connection with architecture is generally understood to imply character which by repeated usage has developed into set form. Character is closely allied to style, but denotes something more personal and fleeting. Style is an advanced state of character: it is character systematised by consistent and persistent effort: it is, in fact, crystallised character. It must not be inferred that style is necessarily evident in all architecture. I regret that its expression is exceptional. Most architecture reveals little more than a phase of character, and much not even that: in which case it might more correctly be described as building. Every style of architecture when analytically examined is found either to have developed out of other styles by the adaptation and infusion of certain of their characteristics, or is found to be a direct transcription of some one other style. In the former case it tends to be original, in the latter case it is affected. Architecture which is original is that which interests us most: but even when affected it is deserving of our best consideration, demanding in its proper expression the ability both of scholar, artist, and actor. Originality is the outcome of a logical system of selection and combination, and its excellence depends entirely upon the scope of the selection and the method of combination. Let us take heed and avoid falling into a popular fallacy, which holds that originality is only forthcoming by the exercise of a strict disregard of all outside influence, and by working as in a dream. This sort of originality is simply a phase of conceit.

All the greatest architectural works are distinguished by the originality of their style—they are a development, and not an affectation, of something else. The modern architect in his effort to produce architecture possessed of original style is confronted with difficulties of a kind altogether unknown to his predecessor who practised prior to a period commencing about fifty years ago. Then but few enjoyed a range of vision acquired by travel and experience sufficiently wide to encumber them with the responsibility of choice. The great majority of architects and designers saw only the works of their contemporaries, and of those who had gone before them which existed in their immediate vicinity.

The responsibility of selection remained with the travelled few, the Inigo Joneses, the Wrens, the Cockrells, and it was open to each man and the use they made of their scholarly knowledge that the advancement of the art depended. Nowadays, the science of photography, the free publication of literature, the facilities afforded for travel, and the easy access to measured drawings of almost every important building in the world, the acquisitions which, although bringing with them their attendant responsibility of choice, have placed each one of us in a position previously enjoyed only by the gifted and favoured few. It is this responsibility, so flippantly accepted, which is accountable for the disconnected and badly composed architecture which everywhere meets the eye. Instead of being the born adherents of an architectural catholicism, from the confines of which we have neither the will nor the opportunity of trespassing, instead of working in one style because we know no other, we of to-day find ourselves cast into the midst of a veritable maze of opinions and conversant with a thousand different styles. It means that this expression of style has of necessity become a highly artificial affair, and dependent to a large extent, not as formerly entirely upon our instinctive feelings as artists, but upon those faculties which have to do with selection, causation, and general comprehension.

There are more and greater artists among us to-day than there have been at any one time in the past, but their work fails for want of proper guidance. What we have most seriously to consider is this direction of effort. If we of the present day allow ourselves to drift, there is no strong current to carry us in a direct course: we simply circle in the eddies of uncertain whirlpools, and end where we commenced, in the midst of perplexities.

English architecture must depend for its success in the future upon a more scientific application of knowledge. Our schools must show a more ordered system in their teaching, and there must be a well-defined consensus of opinion between those responsible for our education. What we must seek to cultivate is a universal original style, and it is towards the establishment of this that our first interest should be directed. It is a fallacy to suppose that we shall ever arrive at a stage in our national existence when such a style will prevail, exclusive and all-potential, and

which, banishing all others, will develop entirely on its own initiative. Undoubtedly it is only where conditions prevail approximating this that really great conceptions can be produced, but it is to be feared that for such a complete consummation of effort we must needs await the millennium. Such a glorious amalgamation, with the democratic tendencies which we as a nation possess, is not to be expected. Still at the same time we can all hope to see one style prevail. It will be a style founded on system, scholarly intuition, and Classic inspiration, and will be easily recognised as *à priori* the style of the nation. We see such a style at the present day more or less in evidence in France and in America. Co-existent with such a style are sure to appear others: the results of individual digression or simple affectations.

At no period in history has there been a moment so opportune for the development of a universal style as the present. In our efforts to create such a one we must not be too insular in our ideas. The day has come when we as a nation must be more cosmopolitan. Our great mistake is that we are too self-centred. We must give up that egotistic creed which holds that English tradition must be based on English work. We must look to the best, come whence it may. English tradition in the past has always been nourished from abroad, look at it at any period in history you may choose. All our classic architecture has come from France, Italy, and Greece. There would have been no Inigo Jones had there been no Italy, and no Wren had there been no Paris: and to what do the architects of the Greek Revival—Soane, Cockerell, and Elmes—owe their success if not to their assiduous study of the monuments of Greece and Rome? Once having got rid of the delusion that English tradition can only result from the study of English work, we are free to go ahead.

Let us return once more to Greece, the fountain of all art. Let us study afresh the principles which have produced its perfect examples; then let us examine the works of their immediate followers the Romans, the masterpieces of the Italian Renaissance and the late Renaissance of France, and, finally, the best of the modern works which have been erected in France and America up to the present day, which, in my opinion, put us absolutely in the shade. Thus let us confine our serious attention to all that has been derived directly from a Greek source. Why, when there are so many fine examples to be found in the direct path of learning waiting to inspire us, do we waste our precious time in by-paths? Why

do we linger so long pondering over such decadent styles as are to be found in the early Renaissance of every country in Europe—Elizabethan, Jacobean, sixteenth-century Dutch, and the hundred-and-one other transcriptions of the Renaissance, all of which came second-hand from Italy, and were originated by men who, less favoured than ourselves, had not the opportunity of seeing more than a semblance of what was correct? How is it that our schools, with the exception of the architectural school at the Liverpool University and perhaps the architectural school at the Royal Academy (where there seems to be a tendency to revert to better things), still encourage the study of these decadent styles? Year by year wonderful new books are published directing our attention to decadent works newly discovered in some outlandish quarter of the globe, and illustrating that which is merely quaint and picturesque: compositions such as may be found anywhere, where the main track has been lost. Their serious study simply exemplifies the superficiality of our observation.

I would not wish it to be inferred that I advocate shutting our eyes absolutely and for ever to all the more or less decadent styles which are to be found outside the direct line laid down. These often exhibit a rare artistic expression, a sense of proportion, an interest, and peculiarities of character not found in their purer antecedents: but at the same time they are provincial, they lack a ripe sense of refinement, their details evince a lack of knowledge, are mis-applied, and usually inappropriate. Our schools ought not to include the study of such works in their curriculum. Their interest is archaeological rather than architectural. Let them remain the monuments of an unenlightened people. But stay, there are times when we may be a little playful, a little lax, a little given to act: times, for instance, when we are commissioned by an eccentric client to build a house like a twelfth-century castle, a church like a mosque, an hotel like the Alhambra; or when, say, a building is required merely for exhibition purposes, or even when we are asked to produce such a diversion as an Elizabethan mansion, a Dutch billiard room, or a Queen Anne town hall: do not let us take the commission too seriously, but, recognising that we are only acting a part, let us act it well: let us affect our decadent style with all its decadent detail. Let us have in our Elizabethan mansion the open fire, the dog grate, the wrought-iron latch, with, if you like, the string and bobbin on the outside to pull it up, and all the rest of the crafty clevernesses, freaks, and fancies which are characteristic of the style.

There is no doubt this is the attitude assumed by the Americans when affecting the decadent style. It requires knowledge, a keen sense of humour, and considerable artistic perception to do it well. Badly done it is like bad acting, than which there is nothing more deplorable.

We can, of course, study and affect any style, but the decadent styles are those which should be affected only. As I have already observed, when evolving serious design we should draw our inspirations from a pure classical source, and from that source alone. Working thus, we are working in the Grand Manner.

II.

At the present day in England we have co-existing many original styles of architecture. I describe them as styles, but it is doubtful if they are sufficiently systematised to be regarded as anything more than phases of character. First, we have what is popularly known as twentieth-century Renaissance or Free Classic. This so-called style, when analysed, is really found to consist of nothing more substantial than a confusion of forms, usually exaggerated in proportion, strung together without fitness, lacking the interest of traditional association, and showing no evidence whatever of that which is essential to its continued existence, the expression of any self-evident intention. Extravagant examples of this style are prominently in evidence in every British competition, where design, in its acrobatic effort to be original and attract attention, so often overbalances and collapses in topsy-turvydom.

Another conspicuous style is Twentieth-century Gothic. We are to be congratulated as a profession on the understanding we have arrived at regarding the use of this style. I think I can prophesy with considerable certainty that the last public building of importance has been erected in the Gothic style, its use is now entirely relegated to ecclesiastical purposes. Although a decadent style, its rooted association with the past will ever commend its use in this connection. The Gothic works of Sir Charles Nicholson, the late Mr. Bodley, Mr. Leonard Stokes, Mr. Tapper, and Mr. Scott are in their own way among the most satisfactory pieces of modern architecture which we possess. Twentieth-century Gothic appears to have been derived directly from the Perpendicular and Late Decorated work of the fifteenth century, and in its composition and massing are usually to be found traces of an influence distinctly Classic. It is quite an original style, and although for subtlety of detail, polished refinement, and suitability of purpose Gothic can never again

seriously compete with Classic, used in its proper connection it is to be commended. Then there is that very conspicuous style which, if not exactly the same as, very closely approximates to *l'art nouveau*. To be exact, it is *l'art nouveau* of Otto Wagner of Vienna. It is to be regretted that this caprice should have captivated the attention of more than one distinguished architect.

Then there are the individual styles which have been originated by such artists as Mr. Ernest George, Mr. Norman Shaw, the late Mr. Bentley, and Messrs. Lanchester & Rickards; and, finally, we have the work of Messrs. Mewes & Davis, Mr. Frank Verity, Messrs. Skipper of Norwich, and Professor Berestord Pite, which is distinctly scholarly.

In my enumeration of the styles and stylists of England existing at the present day, and in my denunciation of work not derived from a pure source, I wish it to be understood that my remarks refer in particular to style as seen in works of a monumental order, and do not refer quite so strictly to our domestic work of the simpler class. Although derived from decadent styles, there is much that is very appropriate in the rustic architecture, say, of Mr. Lutyens, Mr. E. J. May, Mr. Detmar Blow, Mr. Lorimer, Mr. Ernest Newton, and Mr. Baillie Scott.

I see that it is impossible all at once to dissociate the country residence in England from its primitive surroundings, as is the case with monumental architecture. Yet I feel that the time is not far distant when our middle class, more cultivated in their tastes, will prefer formal regularity to picturesque charm. Their domestic architecture will be based on models such as have been left us by the architects of the Greek Revival, of which neglected examples are to be met at every turn. In the Early Victorian architecture of this country will be found a stateliness of proportion, staid character, and appropriateness to the exigences of modern existence such as are not found in earlier work.

I think we must admit that the so-called cottage residence of the rich is not, after all, a very serious affair. Is it not usually built as a diversion to interest rather than to satisfy? It seems to me that our domestic work of the future must concern itself with something more real than battlements, the exhibition of solid oak beams, crooked ridges, fungoid tiling, bull's-eye glazing, and imitation half-timber work which lolls in the damp.

III.

I have now discussed at sufficient length the present-day architecture of England, as exemplified in its many styles: let us turn to France, and, having cast a rapid glance at the methods and styles

of the French, I will conclude with some observations on the architecture of America.

In France the École des Beaux-Arts, instituted in the seventeenth century, has been an Academy and centre of learning such as no other country has produced; this, with its institution of the "Grand Prix de Rome," has kept French art in intimate association with the classics, and has enabled France to attain to the high position she at present holds in the world of art.

An examination of the architecture which is being put up in Paris to-day reveals to us many styles, but among these one stands out as being national and traditional. We find it typically exemplified in such buildings as the Grand and Petit Palais, the Gare d'Orléans, the Hôtel de Ville at Tours, and in the new theatre at Amiens. Its surface treatment and most of its details are borrowed directly from the Louis Seize, while in its composition it bears a distinct trace of Roman influence, no doubt due to the continued study of Roman work by the Prix de Rome students.

The striving after grandeur of composition, so conspicuous in modern French architecture, is what they themselves term the *tour de force*. It is a distinctly modern attribute, to my mind in doubtful contrast to the more sober efforts of the older school, among whose works I may mention the Faculté de Médecine by M. Léon Ginain, the Library of St. Geneviève by Henri Labrousse, the Bibliothèque Nationale by M. Pascal, and the Sorbonne by M. Nétot. A recent design showing conspicuous evidence of this *tour de force* was characterised by M. Pascal as a design for a cartouche with a building for a background. We see this modern treatment of the French, the *tour de force*, strikingly exemplified in their gigantic portals, in their massive piers, in their rusticated bases, and in the general scale of their layout. My own feeling is that here there is a tendency to digression, and that the buildings erected by the older school were more refined and in better taste. Compared with these, the works of the later school are distinctly inclined to be theatrical, and although we ourselves have much to learn from modern France, there is still more to be learnt from France under the Louis', and especially from the works erected during the reign of Louis XVI. and immediately after; in fact, I venture to say that at no time in the world's history, even including the fourth century B.C. in Greece, has abstract beauty attained to such perfection as it did then. I regret to find that modern France, like every other country in Europe, has been infected with that extraordinary mixture of cleverness and caprice, *l'art nouveau*; but the Frenchman, better educated in the principles

of true proportion than his confrères in other continental countries, has never used this style otherwise than as a dressing to his traditional *motifs*.

IV.

In conclusion, let us glance at America, that go-ahead country which, arrested by no tradition, has had the opportunity afforded it of originating a national style in a way not permitted to other countries like our own. The American architect of to-day stands for professional attainment second to none in the whole world. The national style of America has been originated absolutely on scholarly lines, and the best American work, for suitability of purpose, correctness of *motif*, and appreciation of scale, comes occasionally almost as near perfection as did the masterpieces of Greece and Rome. And how has all this come about in so short a space of time as fifty years? Absolutely, by study: well-directed study, and study of nothing but what the world recognises as the best. Rome went to Greece, and America went to Greece and Rome.

During the last fifty years it has been the practice of the profession to send their well-to-do and most promising students to France, there to study in ateliers or at the École des Beaux-Arts, completing their studentship with a tour of Italy and Greece; and it is absolutely due to this method of study that American architecture is the most scholarly in the world. But let me quote some extracts from a leading article published about two years ago in the *Architectural Review* of Boston, where the secret of America's wonderful progress in architecture is clearly revealed. It says: "For the last fifty years a new and great influence upon American architecture has been steadily growing. The primary source of the influence is the École des Beaux-Arts of the French Government at Paris. In reality this school has been promulgating a great fundamental idea—namely, the academic in architecture." And again: "The academic method of attacking and solving a problem has ceased to be a fad and a fashion. It has persisted to such an extent that it is bringing about a veritable revolution. This means that our architecture, first of all, is to be founded on symmetry, rhythm, and logical standards; and that our buildings shall express their use." Further: "Richardson and Hunt first demonstrated the value of the academic training when tempered by a personality that is capable of selecting, the which is vital. The days have rushed swiftly in America since these men left Paris. Hundreds now follow their example. They were pioneers. They opened up great possessions for the generations that are to

come after them. Our principal schools of architecture are now getting primary inspiration from the French method, and, beyond this, are yearly sending recruits to go deeper into the heart of its teaching."

The above extracts indicate pretty clearly to what the success of American architecture is due; and since the above lines were penned America's architectural schools have progressed rapidly—in particular that at Harvard University, which is organised on the lines of the *École des Beaux-Arts* of Paris, and equipped with professors of such proficiency that it is able to compete in its method of study with the *École des Beaux-Arts* itself. In fact, we are given to understand that the architectural student of the future will go to America to study, and not, as formerly, to France—an idea which, although perhaps a little advanced, certainly looks remarkably like coming true.

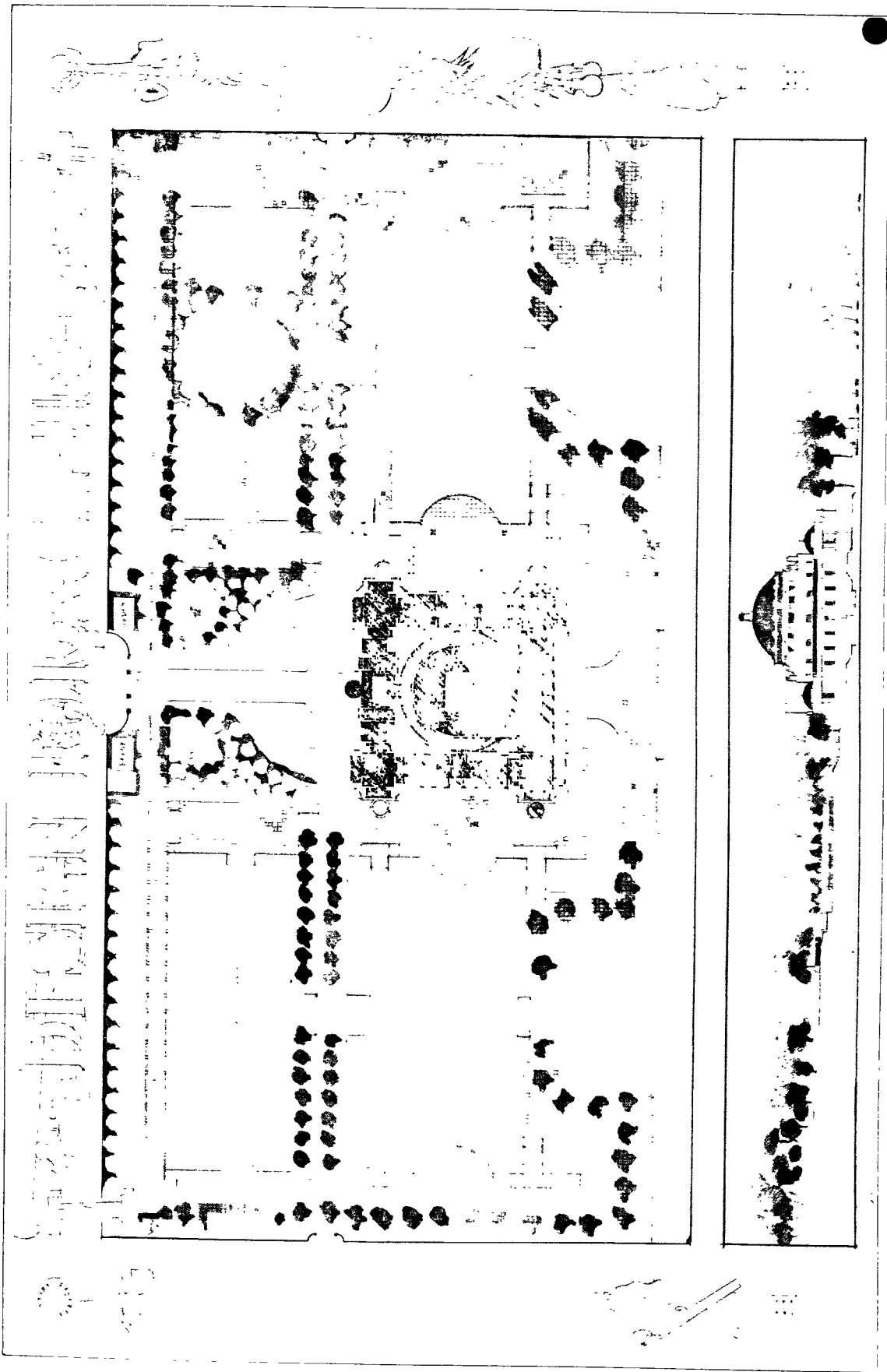
One cannot separate American architecture into broad styles, as in this country, nor in a measure as one can do in France. Its distinctions are more the distinctions of individual style than such as are based on absolute differences of opinion and inspiration. America has, of course, her affected styles, her Gothic and her *art nouveau*; but these, though of secondary importance, are always handled in a scholarly way rarely seen in other countries. At the head of their profession stands the firm of Messrs. McKim, Mead & White, whose scholarly work reveals a repertoire of knowledge which seems absolutely astounding. Their work is remarkable in its consistency and variety, and whether it be based on the Roman, the Italian, the Louis Seize, and the English Revival, or whether it be a pure affectation, it always shows the imprint of the firm's individuality. Almost as prominent as the firm of Messrs. McKim, Mead & White is the firm of Messrs. Carrère & Hastings, whose work, usually based on the Louis Seize and modern French, is equally purposeful. Among the names of other firms whose work is deserving of attention, I would pick out Messrs. Howell & Stokes, Messrs. York & Sawyer, Mr. Cass Gilbert, Mr. Ernest Flagg, and Mr. Guy Lowell.

The American of to-day, as a domestic architect, is very advanced in his ideas. In the immediate past we have been wont to associate the American country residence with the bungalow type of dwelling—a type originally evolved to express the conditions of primitive existence. The bungalow, though still regarded as quite a good type of residence when required as a holiday resort for the rich and leisured

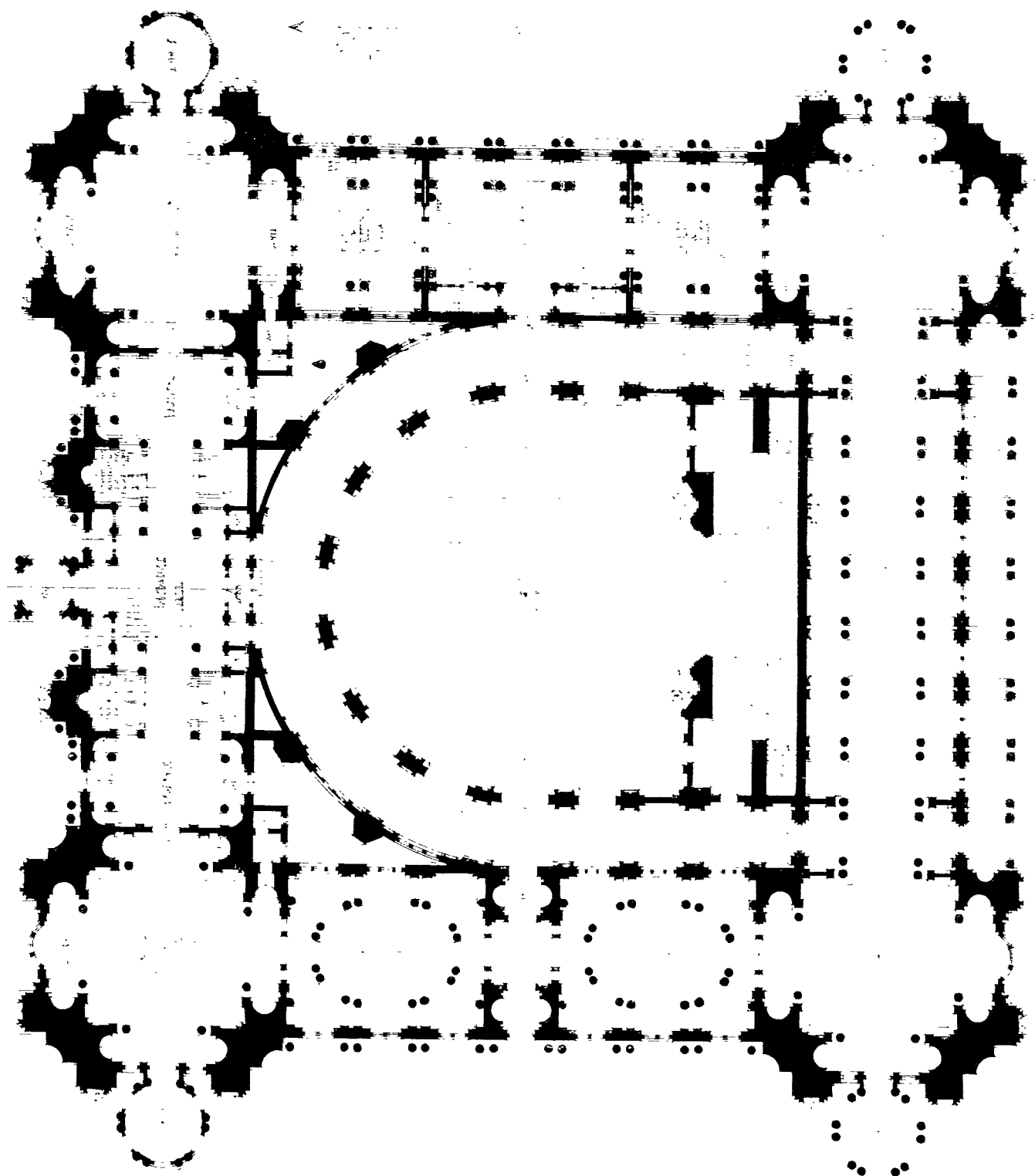
classes, is not, however, the typical country residence of to-day. Their latest examples show us pretty clearly that they have come to recognise the architectonic value of symmetry, formality, and regularity, and are undoubtedly inspired by European models of a late period—early nineteenth-century houses such as are to be seen in that much-despised Gower Street, in Bedford Square, St. James's Square, and in fact all over London, and contemporary examples in the country—models which our own students in their hurry to measure up Sir Paul Pindar's house at South Kensington, or some similar early example, I am afraid quite unconsciously pass by. These early nineteenth-century houses of ours are, however, well known to the American, though it is not until they have been Americanised in New York and sent over to us in the American journals that we for the first time recognise in them their utility, purposefulness, and refinement.

Coming to *l'art nouveau* of America: without taking into consideration one or two isolated shop fronts to be seen in New York, and perhaps one or two town houses, properly speaking, *l'art nouveau* as seen in America has a distinct character of its own. Its lines are square, rather than a combination of reversed curves, and its detail, derived either from Oriental styles or directly from natural forms, is less tiresome than that of *l'art nouveau* which we see in other countries. It is in Chicago that it has thriven best, where examples may be seen in the works of such architects as Mr. Louis H. Sullivan, Messrs. Dean & Dean, and Mr. Howard Shaw. The golden arch of the Transportation Building of the Chicago Exhibition of 1893, by Mr. Sullivan, is a really noble work; one only regrets that the soberness and grandeur of its conception was marred by the curiousness of its detail.

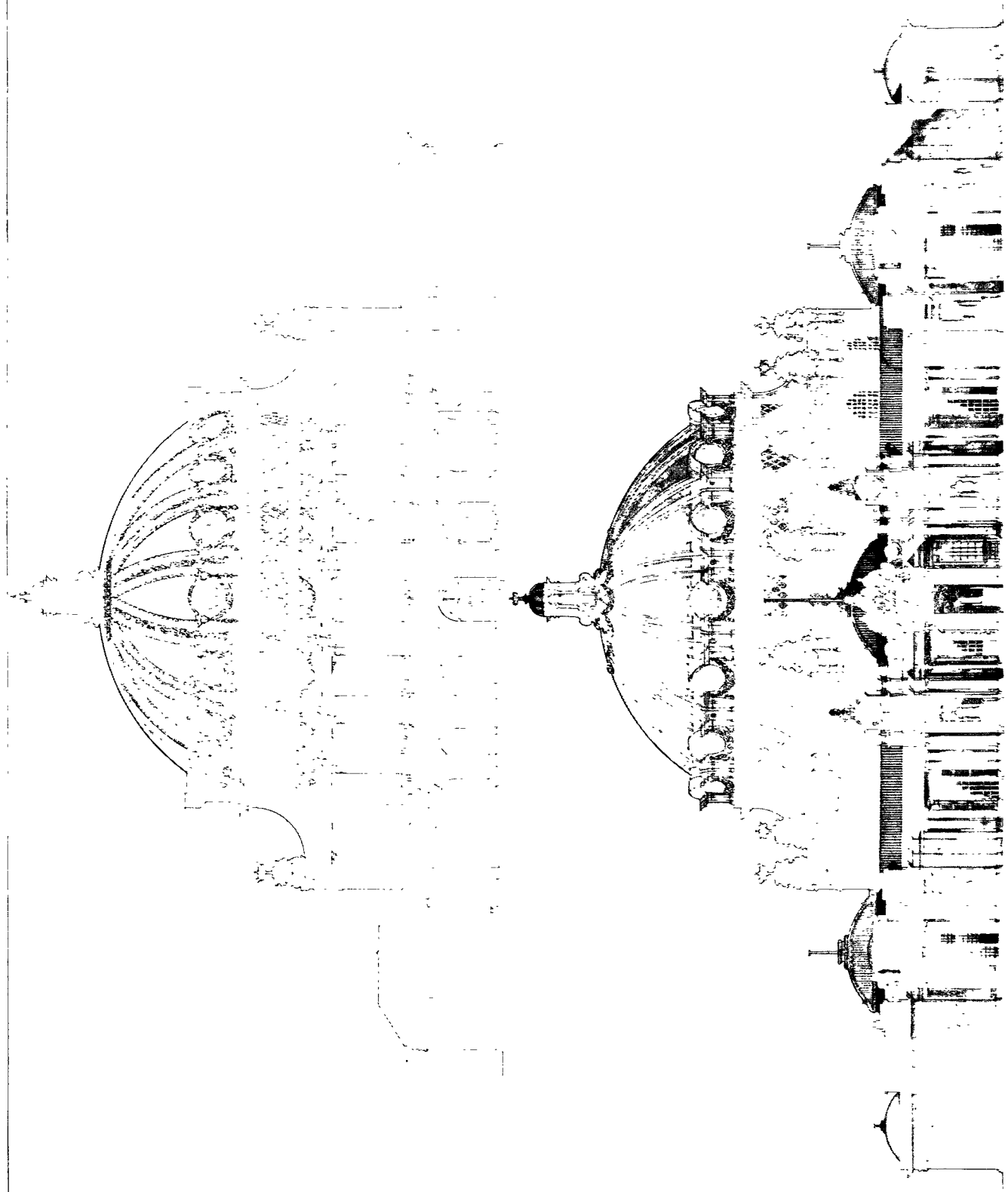
In conclusion, I hope I have shown that modern architecture, if it is to develop a style capable in its *total ensemble* of expressing dignity and grandeur of effect, possesses in its detail the interest which arises out of variety and consistency; and if it is to be purposeful and convey in its *motifs*, features, and carvings a correct association of ideas—I say, if it is to fulfil all those requirements, it must be the outcome of a sound aesthetic sense, wide research, and scholarly attainment. To sum up, it must be scientific, and the work of the philosopher as well as of the artist. Our profession is a difficult one, more difficult now than ever it was in the past; still, we must go ahead. Let us amalgamate, establish system and order, lay the foundation of a noble style, and we shall have done our best.



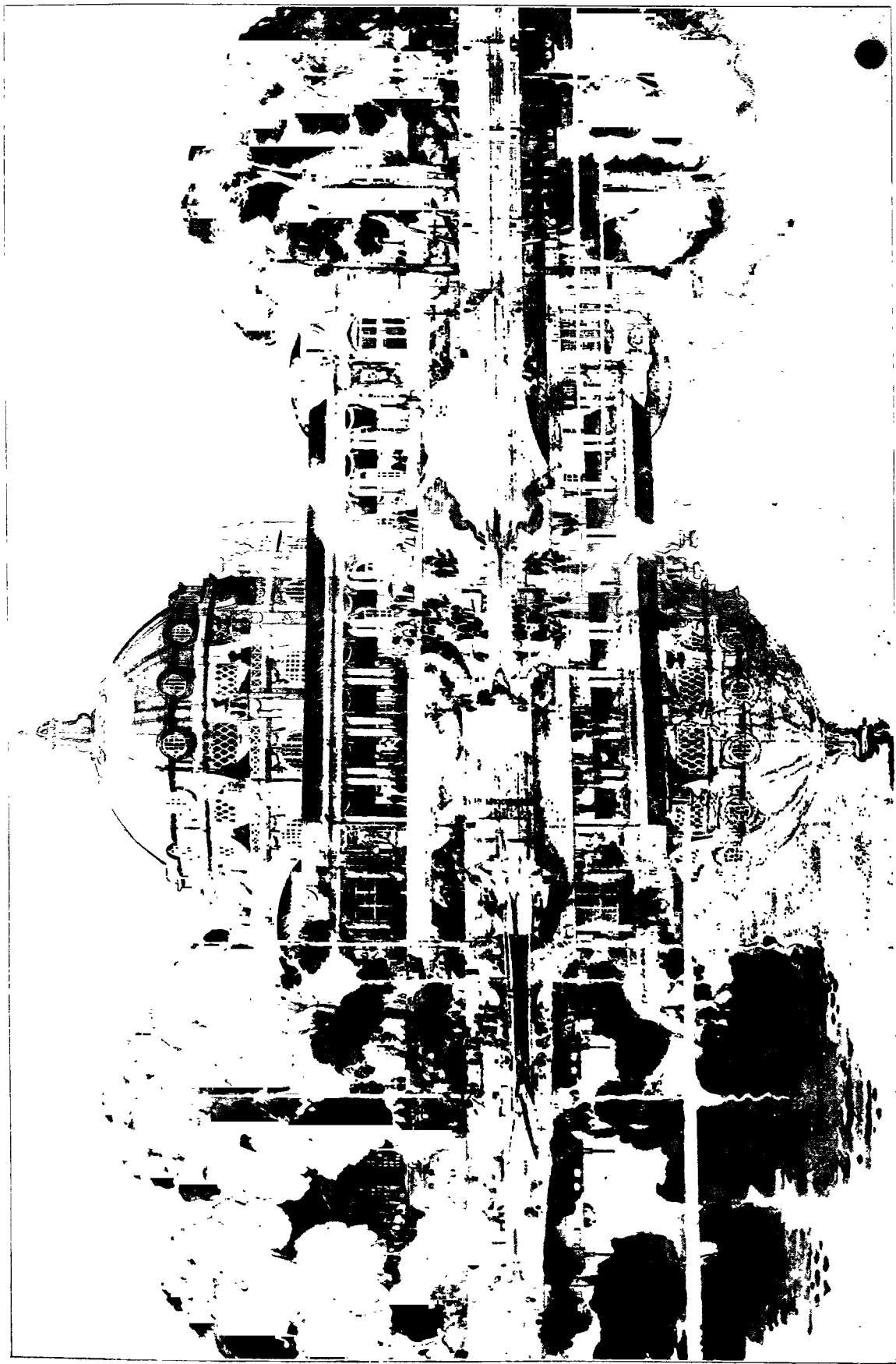
RUBA PRIZES AND STUDENTSHIPS 1909 SELECTIONS FROM THE PRESENTED DRAWINGS
 SCOTT MEDALION—DESIGN FOR A CAUSE ON THE BORDERS OF A LAKE BY ANTHONY R. BARKER ("RED SEA"), AWARDED THE MEDALION AND £100



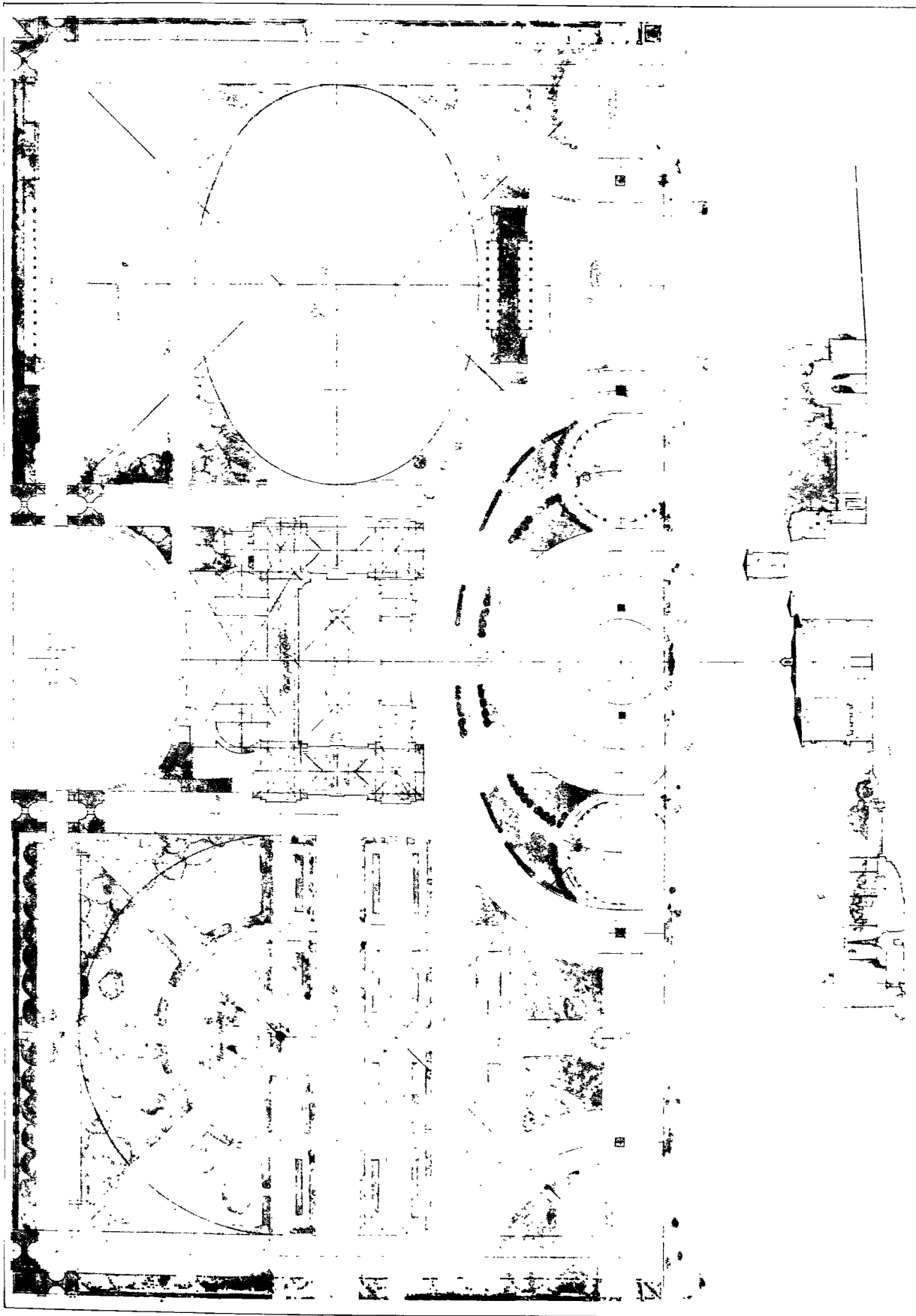
RIBA PRIZES AND STUDENTSHIPS 1960 SELECTIONS FROM THE PRESENTED DRAWINGS
SOCIETY MEDALLION DESIGN FOR A CHURCH ON THE BORDERS OF A TOWN, BY ANTHONY R. BURKE (1960) SEE "AWARDED THE MEDALLION AND £100



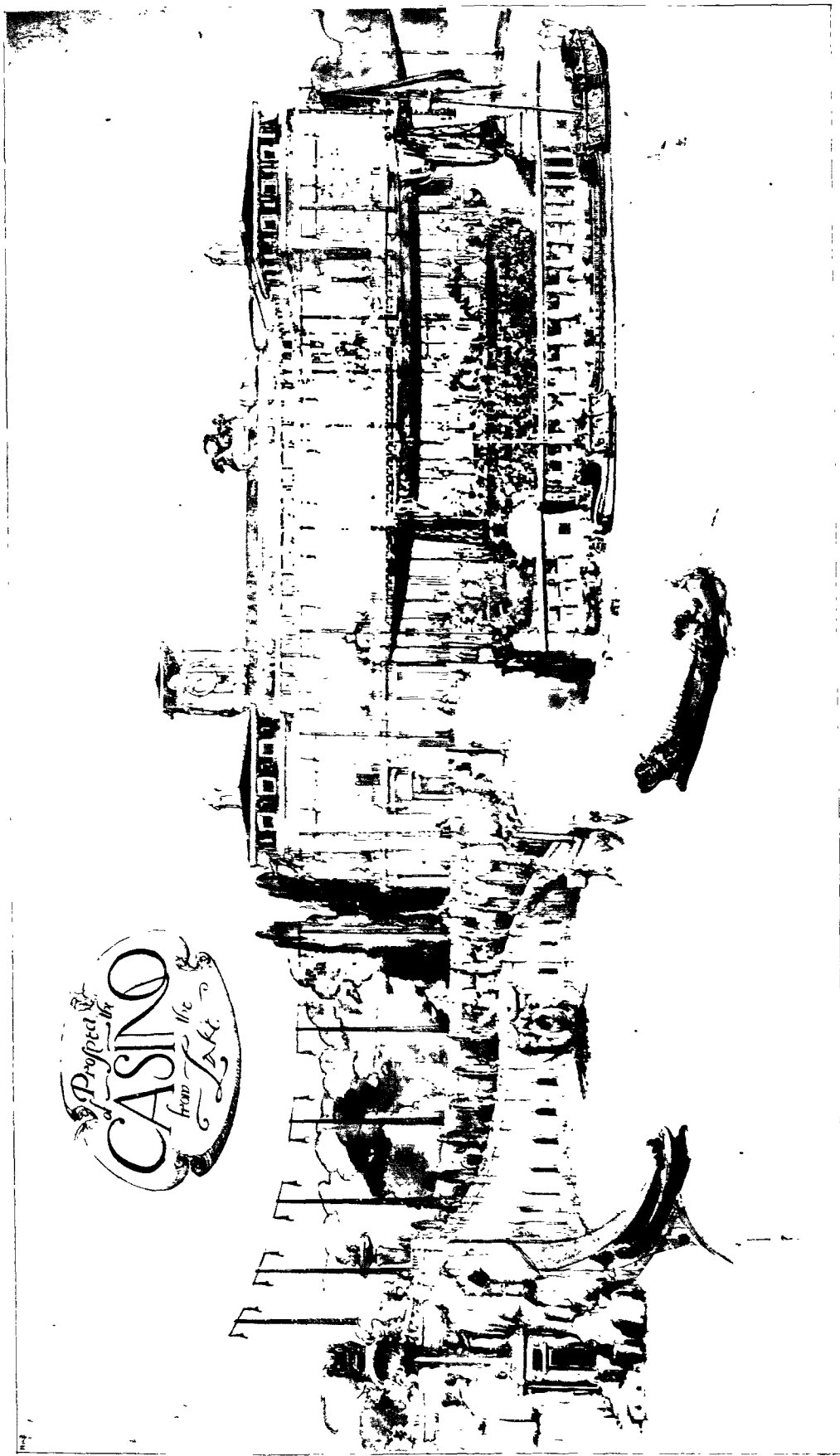
REBA PRIZES AND STUDENTSHIPS 1909 SELECTIONS FROM THE PRESENTED DRAWINGS.
 SECOND MEDALION DESIGN FOR A CASINO ON THE BORDERS OF A LAKE, BY ANDREAS R. PARKER ("RED SEAL"), AWARDED THE MEDALION AND £100



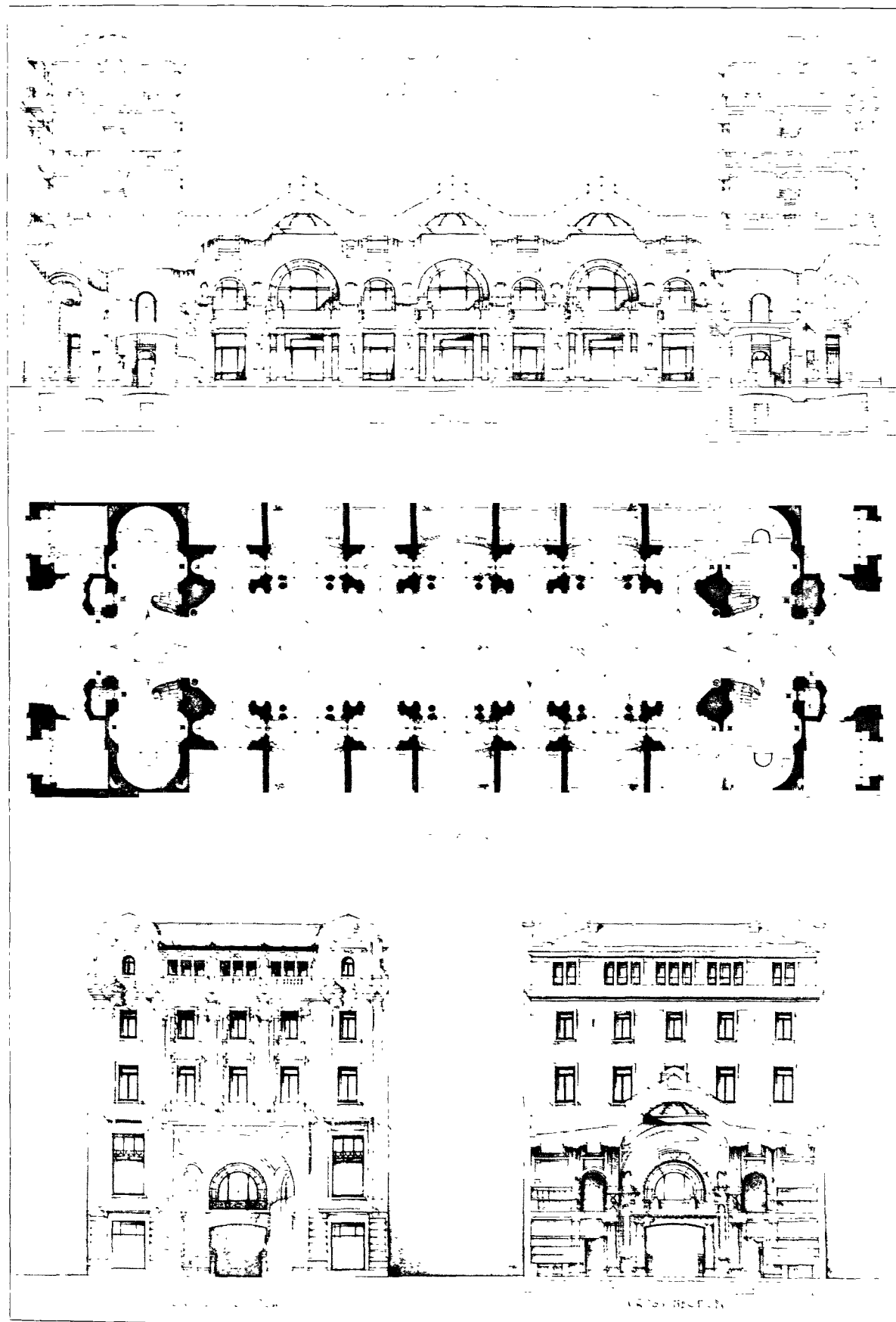
REBA PRIZES AND STUDENTSHIPS 1909 SELECTIONS FROM THE PRESENTED DRAWINGS
SOCIETY MEDALS DESIGN FOR A CASINO ON THE BORDERS OF A LAKE, BY ANTHONY R. BARBER ("RED SEAL"), AWARDED THE MEDALLION AND £100



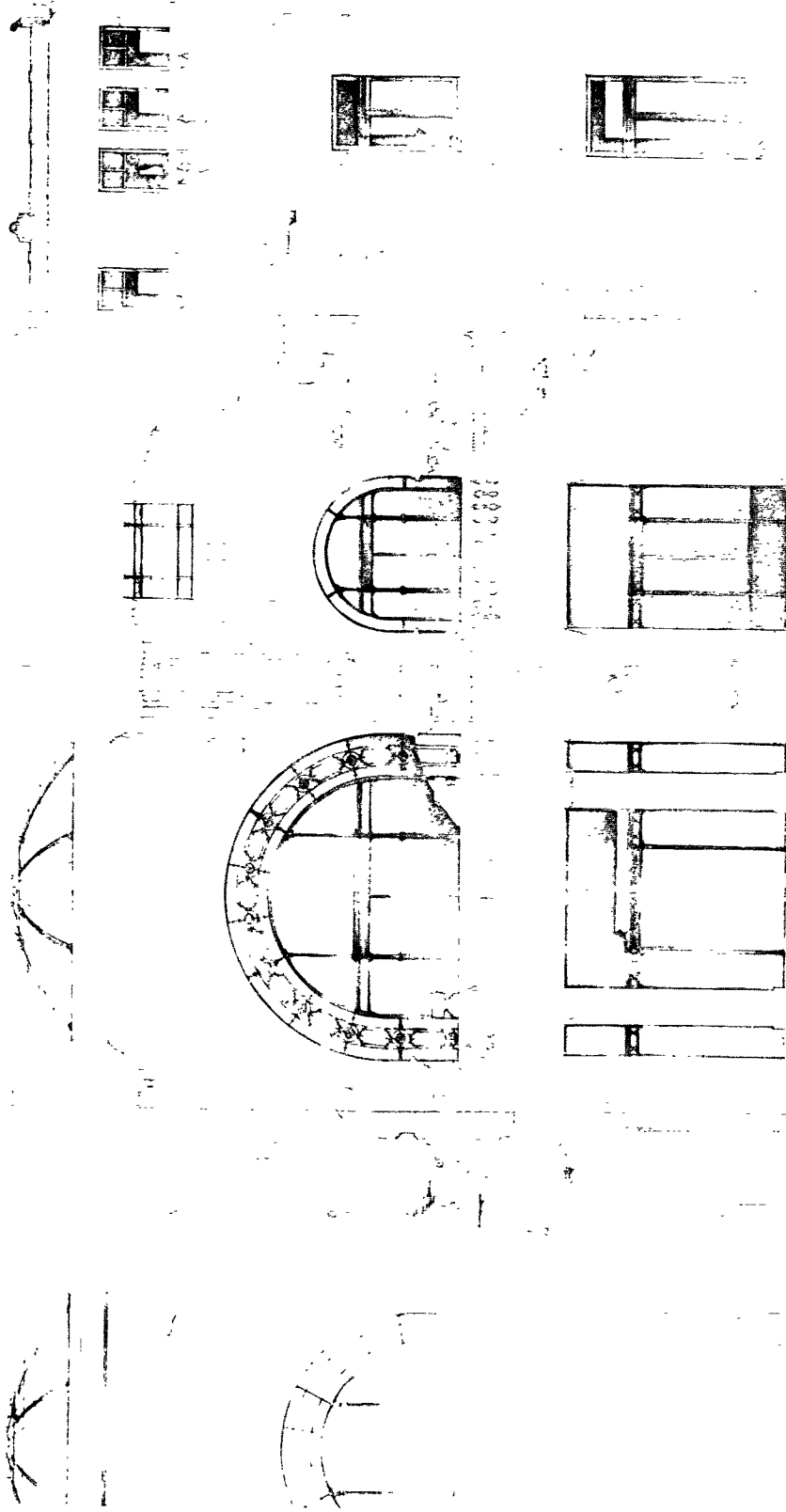
RIBA, PRIZES AND STUDENTSHIPS 1909 - SELECTIONS FROM THE PREMIATED DRAWINGS.
 SOUV. MEDALION DESIGN FOR A CASINO ON THE BORDERS OF A LAKE, BY ADRIAN BIRKINGTON (CONTRIBUTOR), AWARDED HON. MENTION AND TWENTY GUINEAS.



SOAVE MEDALLION DESIGN FOR A CASINO ON THE BORDERS OF A LAKE, BY ADRIAN BERRINGTON ("CENTRELINESS"), AWARDED HON. MENTION AND TWENTY GUINEAS



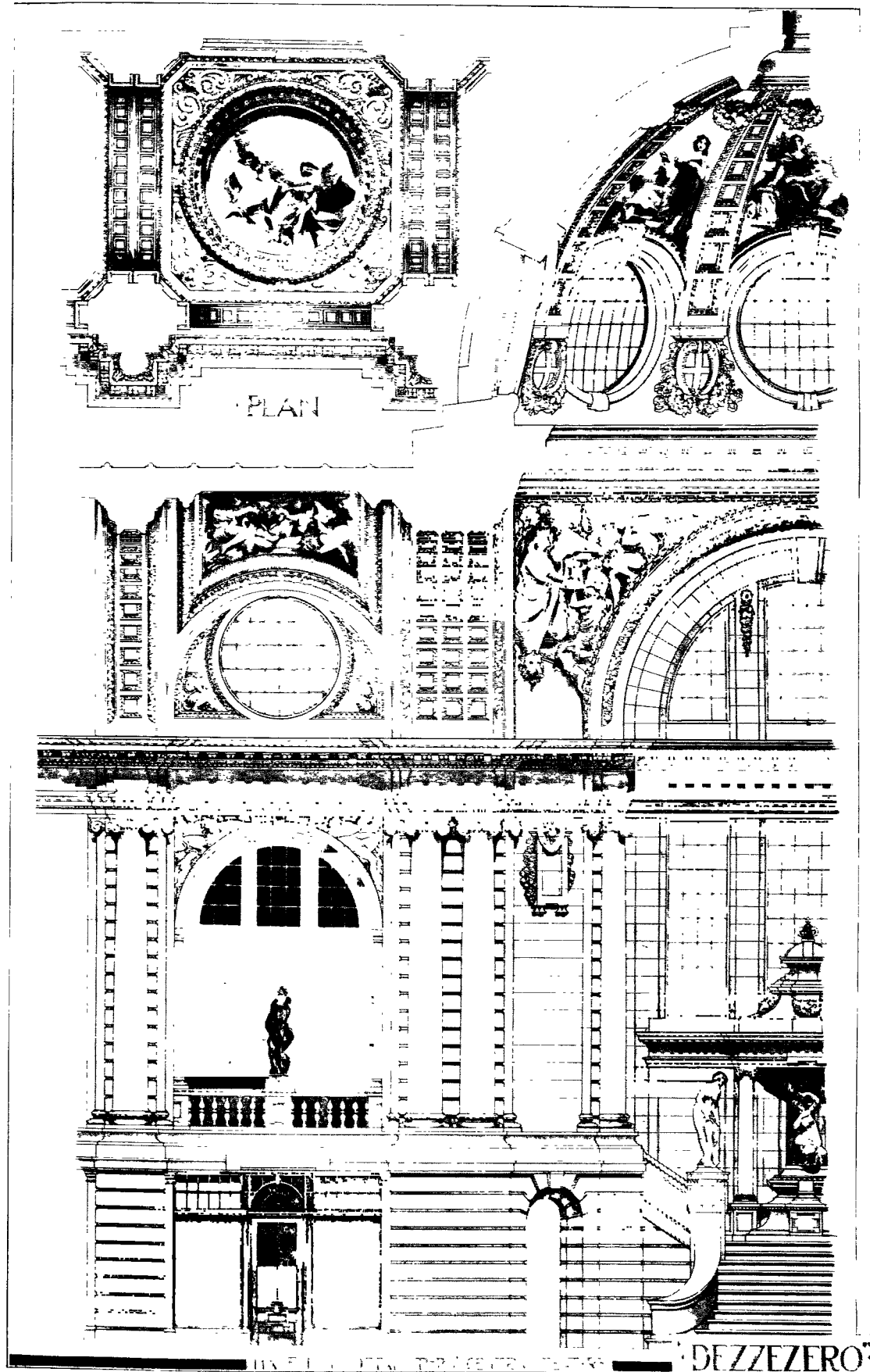
RIBA PRIZES AND STUDENTSHIPS 1909--SELECTIONS FROM THE PREMIATED DRAWINGS
 THE CERTIFICATE --DESIGN FOR A COVERED ARCADE OF SHOPS, BY RICHARD W. M. GUNN ("CLARION"), AWARDED THE
 CERTIFICATE AND £30



R.I.B.A. PRIZES AND STUDENTSHIPS 1909 SELECTIONS FROM THE PRESENTED DRAWINGS
 THE COVERED ARCADE DESIGN BY RICHARD W. M. GUNN (CHARTERED), AWARDED THE CERTIFICATE AND £20



RIBA PRIZES AND STUDENTSHIPS 1900. SELECTIONS FROM THE PRIMAILED DRAWINGS.
THE CERTIFICATE "DESIGN FOR A COVERED ARCADE OF SHOPS, BY BERTRAM EDWIN LESTER, LAST MAN IN, AWARDED FIFTEEN GUINEAS."



R.I.B.A. PRIZES AND STUDENTSHIPS 1900. SELECTIONS FROM THE PREMIAED DRAWINGS
 THE CERTIFICATE -Design for a Covered Arcade of Shops, by S. HERBERT MAX (Dezzero), AWARDED
 TEN GUINEAS.

DESIGN FOR A LANDING STAGE
FOR KING EDWARD VII
FROM A ROYAL PALACE

OUTER DOCK

THE DOCK IS 100 FEET LONG
AND 20 FEET WIDE
AT THE END OF THE DOCK
IS A SMALL BUILDING
FOR THE BOATMEN
AND A SMALL DOCK
FOR THE BOATMEN
AND A SMALL DOCK
FOR THE BOATMEN

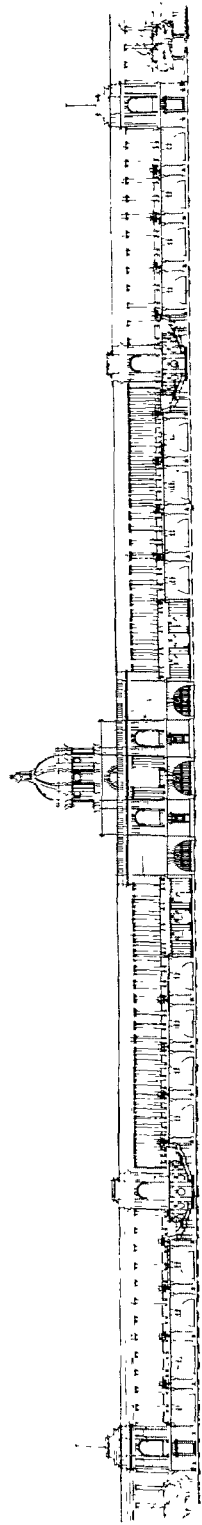
INNER DOCK

THE DOCK IS 100 FEET LONG
AND 20 FEET WIDE
AT THE END OF THE DOCK
IS A SMALL BUILDING
FOR THE BOATMEN
AND A SMALL DOCK
FOR THE BOATMEN

MATERIALS

THE DOCK IS 100 FEET LONG
AND 20 FEET WIDE
AT THE END OF THE DOCK
IS A SMALL BUILDING
FOR THE BOATMEN
AND A SMALL DOCK
FOR THE BOATMEN

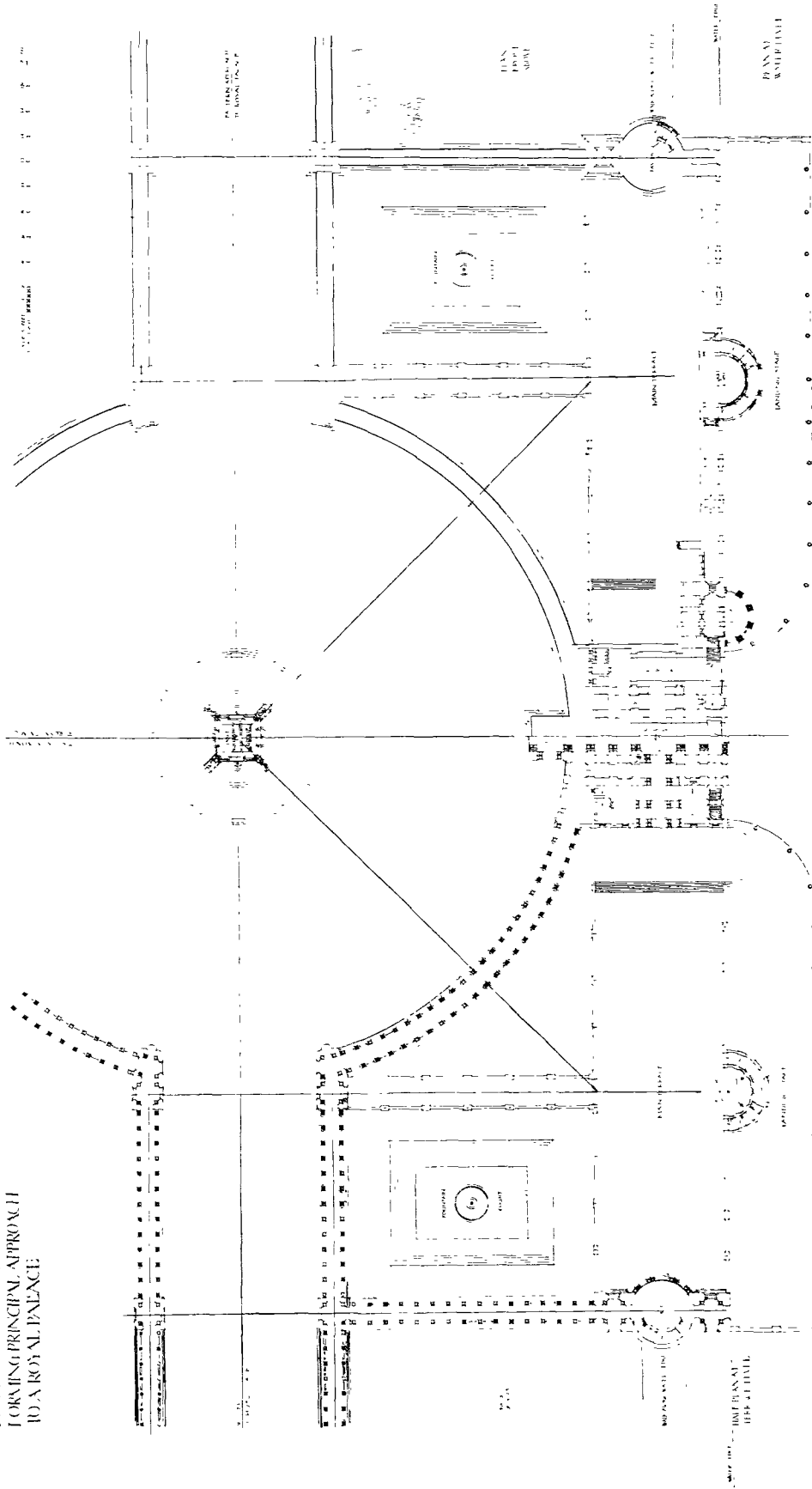
DETAILS OF
CONSTRUCTION
OF INNER & OUTER
DOCKS OVER RE-
CEIVING PIER



DESIGN FOR A LENDING STAGE
FORMING PRINCIPAL APPROACH
TO A ROYAL PALACE

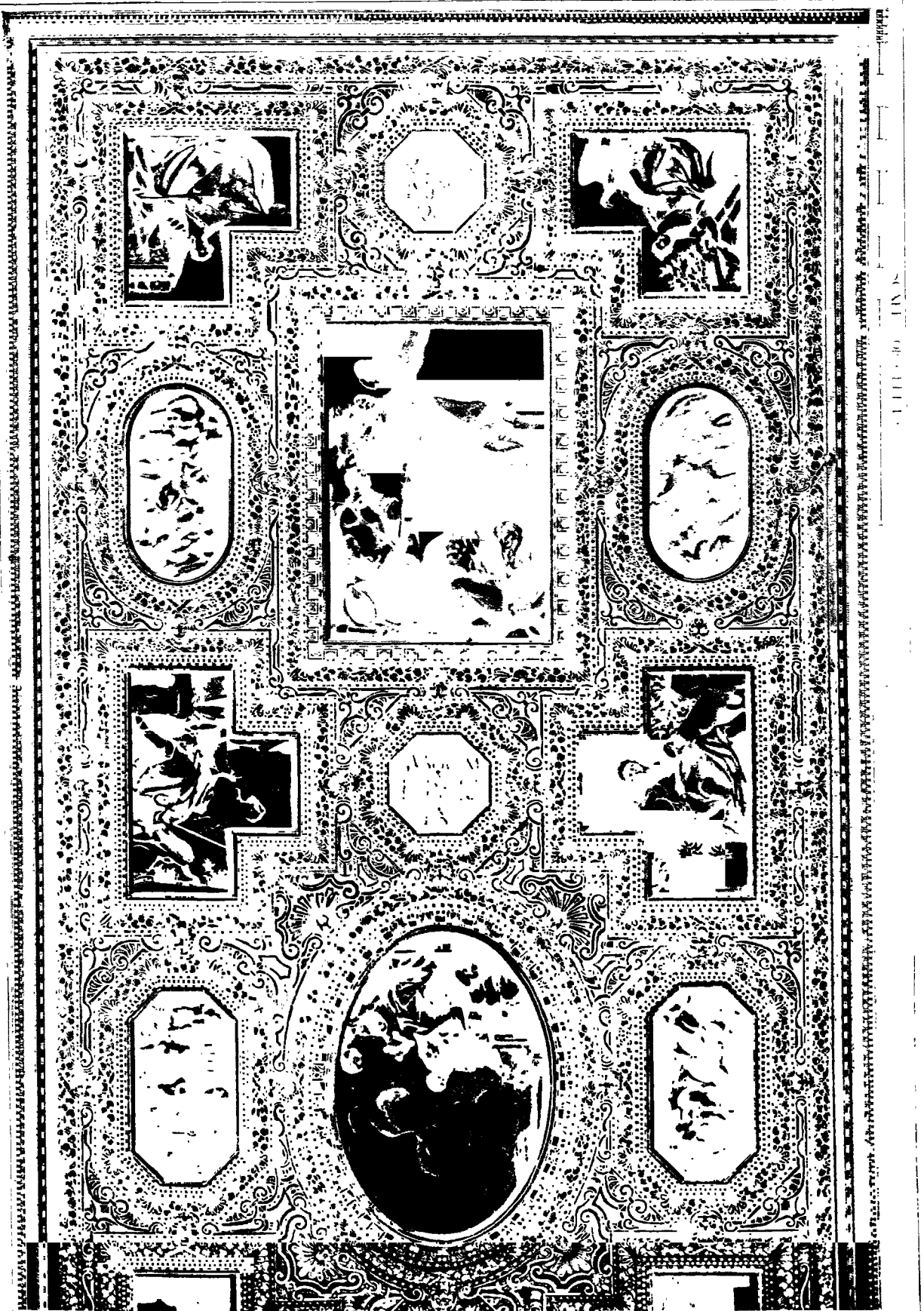
ELEVATION
OF THE

STAGE



REBA, PRIZES AND STUDENTSHIPS 1909—SELECTIONS FROM THE PRESENTED DRAWINGS

CRISTIE GOLD MEDAL DESIGN FOR A LANDING STAGE TO A ROYAL PALACE FROM A LANCIA BY DOUGLAS WILLIAM DAY (1885-1971), AWARDED THE MEDAL AND TEN GUINEAS



RIBA PRIZES AND STUDENTSHIPS 1909—SELECTIONS FROM THE PREMATED DRAWINGS
OWEN JONES STUDENTSHIP: CIPPING OF THE SALAD BY COLLEGGIO, PALA, O DUCALI, VENICE. PART OF DROWING LAY S HERIERS NEW
AWARDED PRIZE OF TWENTY GUINEAS

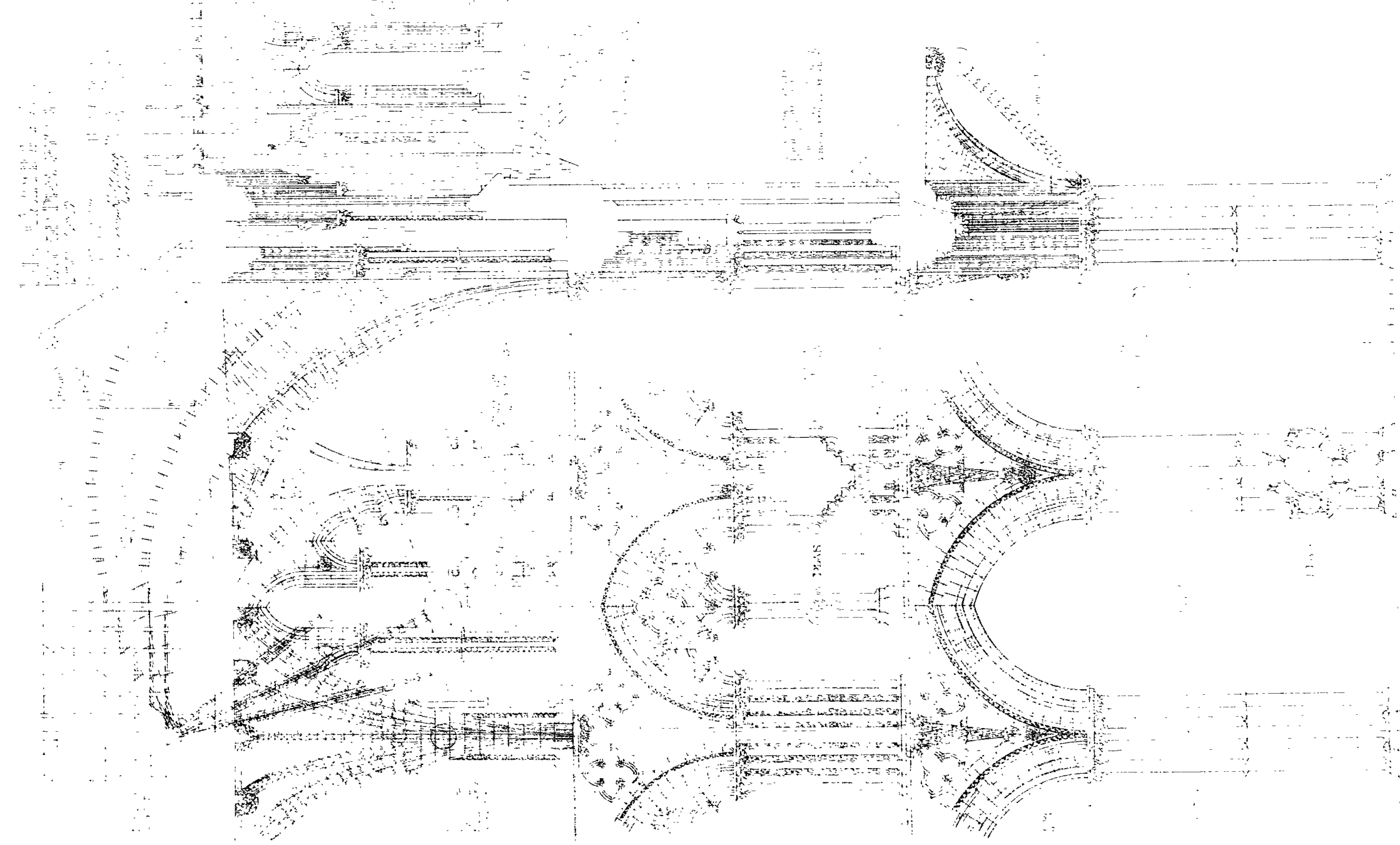
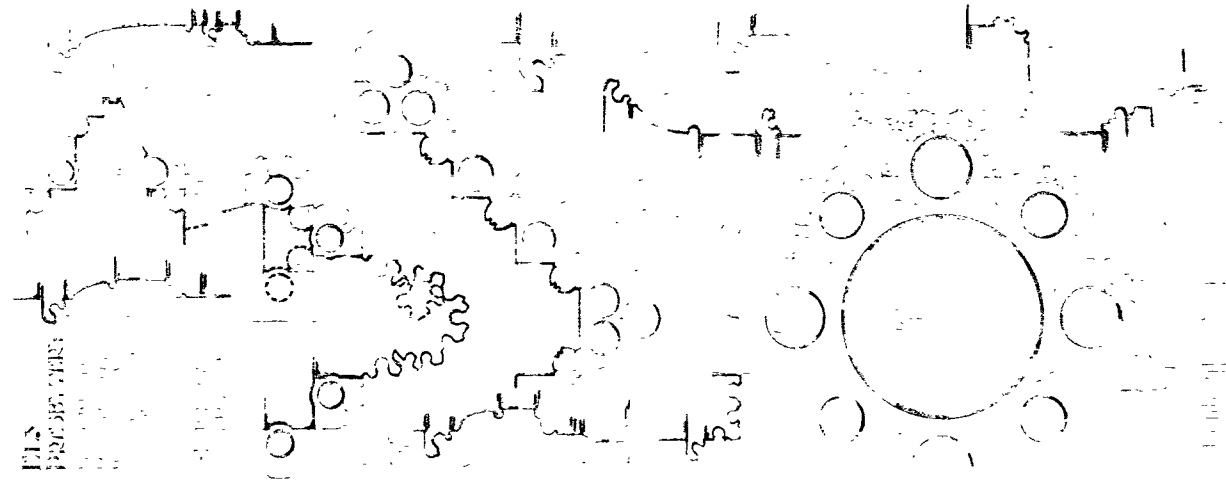
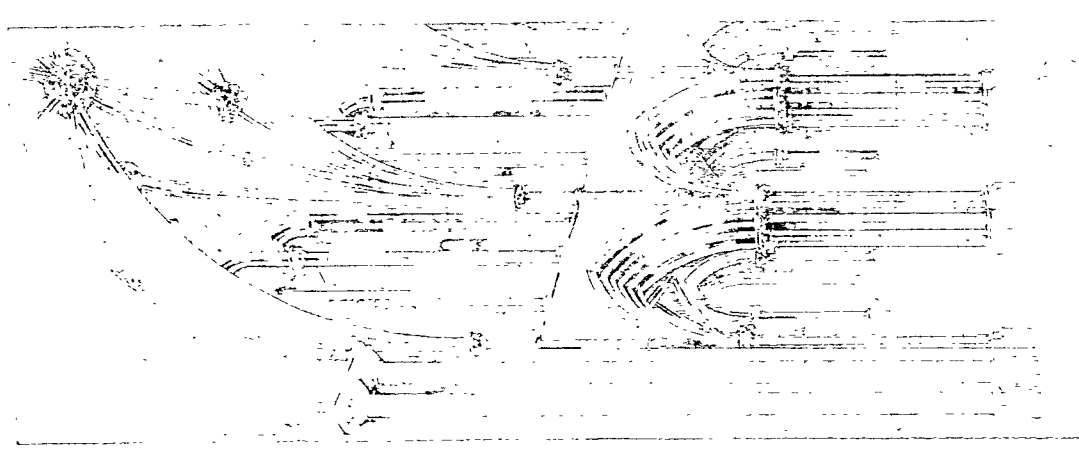
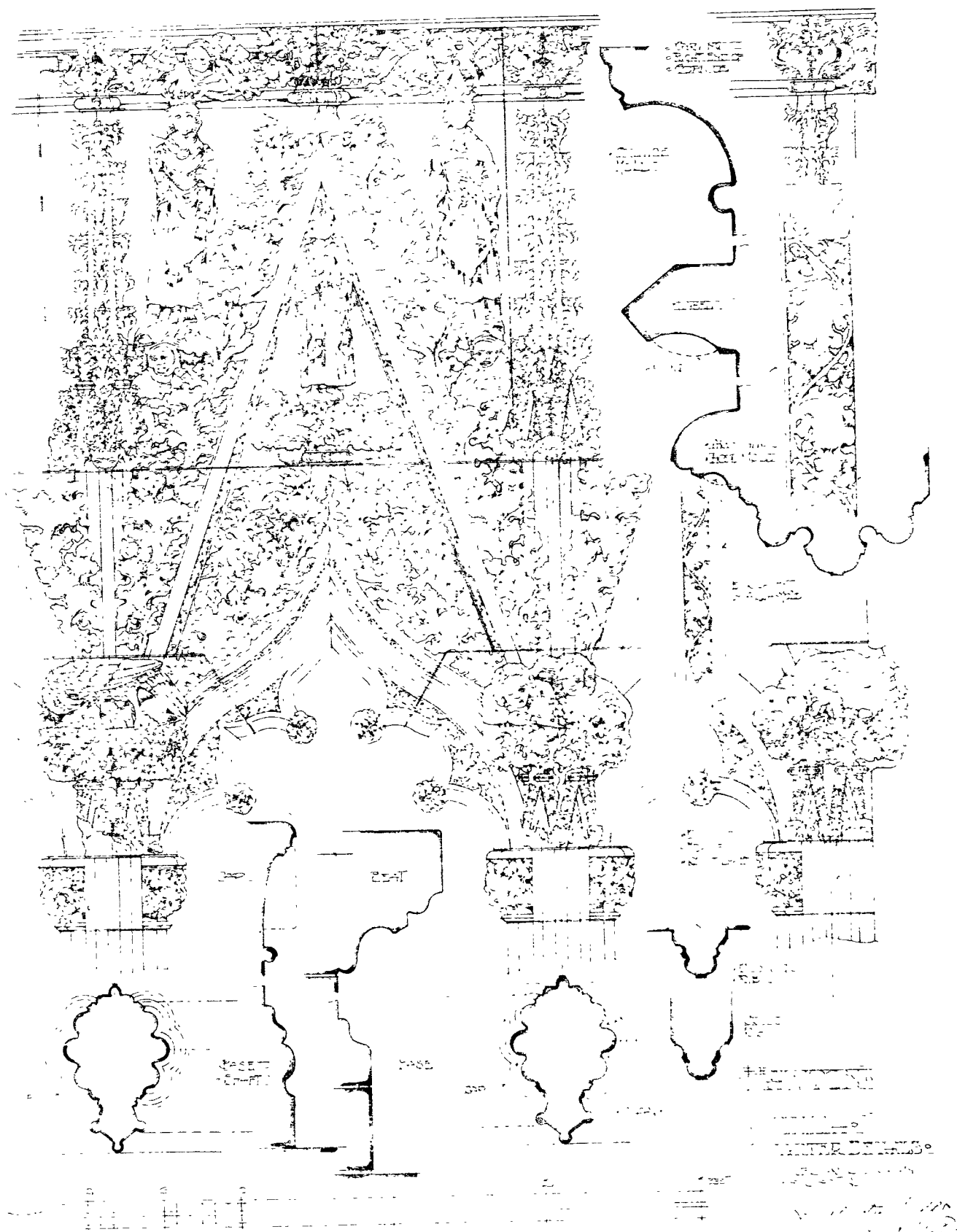


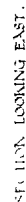
FIG. 1. PRIZE- AND STUDENTSHIP-1900 SELECTIONS FROM THE PREPARED DRAWINGS
 FIG. 2. STUDENTSHIP DRAWINGS BY STUDENT H. MOORE, AWARD FOR PRIZE MONEY AND \$10



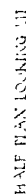
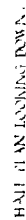
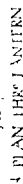
R.I.B.A. PRIZES AND STUDENTSHIPS 1909—SELECTIONS FROM THE PREMIATED DRAWINGS
 PUTIN STUDENTSHIP—DRAWINGS BY SYDNEY H. MELLICK AWARDED THE PUTIN MEDAL AND £100

THE MADONNA
OF SAN RAFAEL
COUNTY, CALIF.

SCAFFOLD

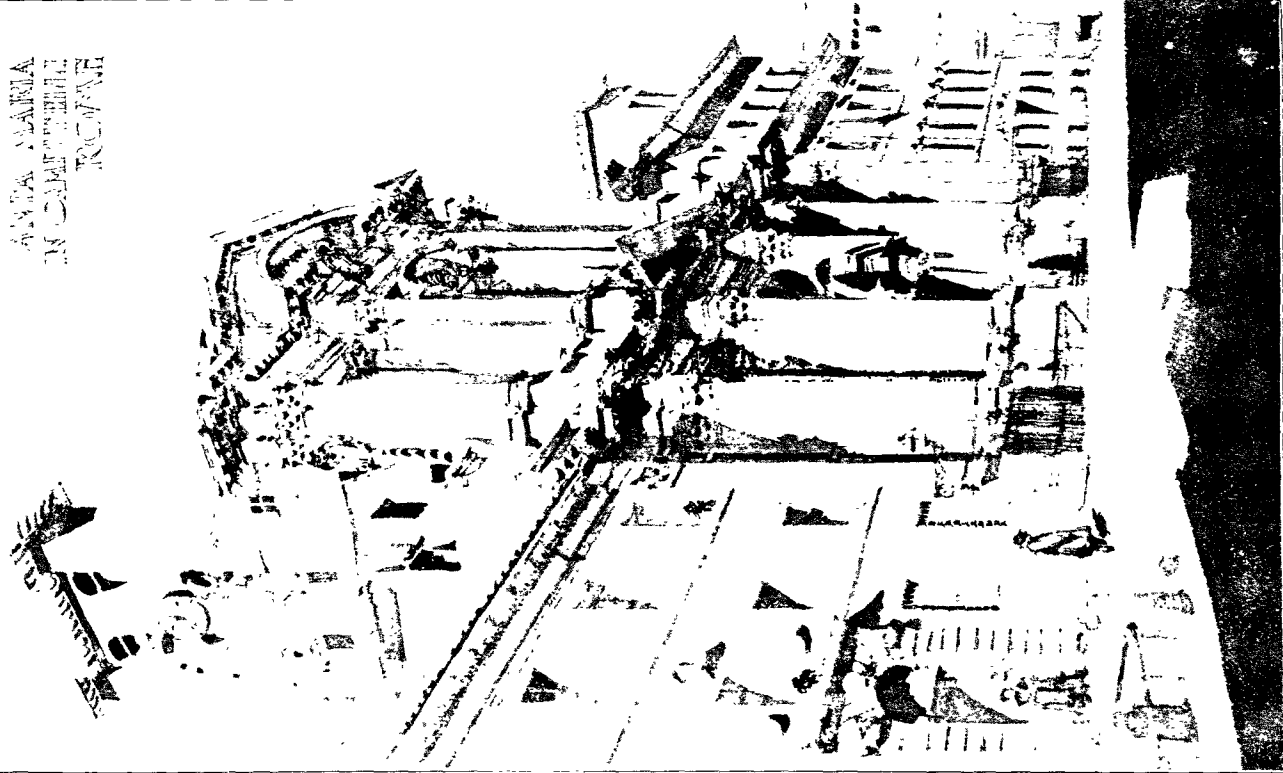


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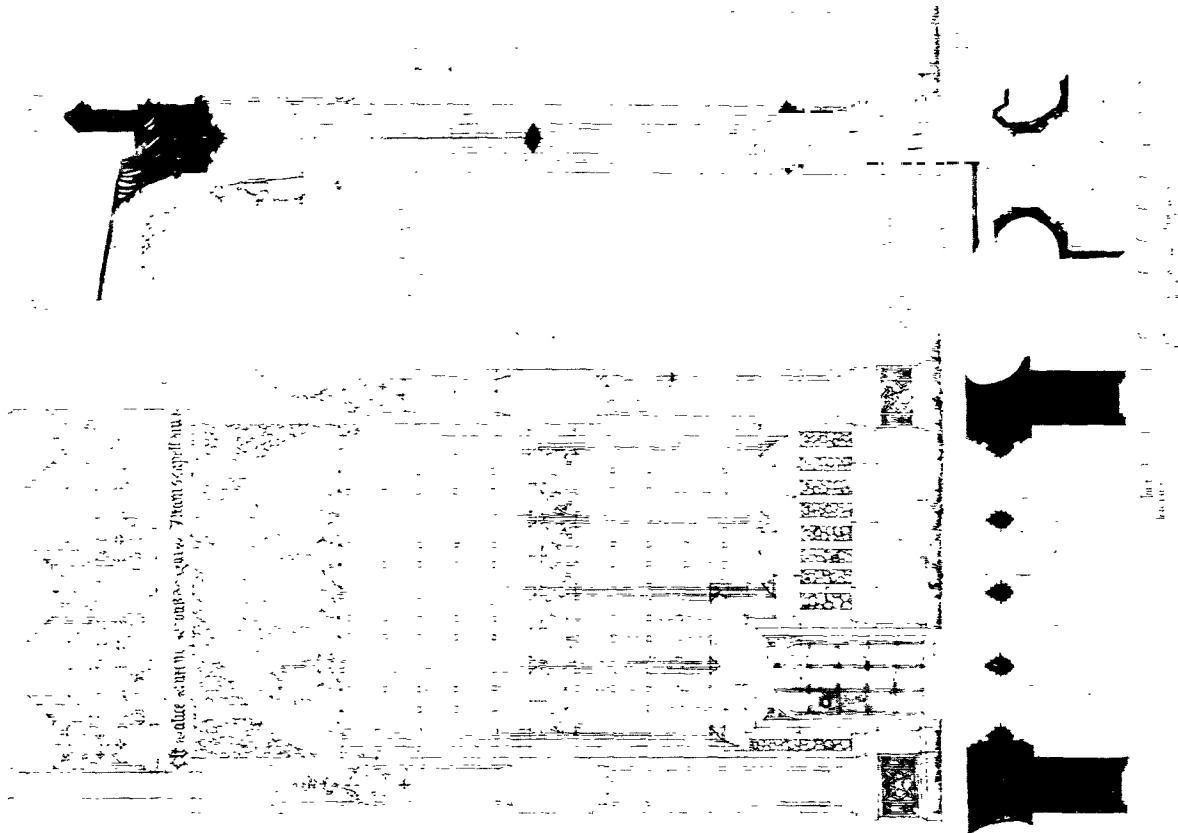
RLA PRIZES AND STUDENTSHIPS 1969 SELECTIONS FROM THE PREMATED DRAWINGS.
MEASURED DRAWINGS BY ERNST W. WRO (SAN CALLO), AWARDED THE INSTITUT SUAR MEDAL AND TEN GUINEAS.

ALTA MARIA
IN CAMPITELLI
ROMA



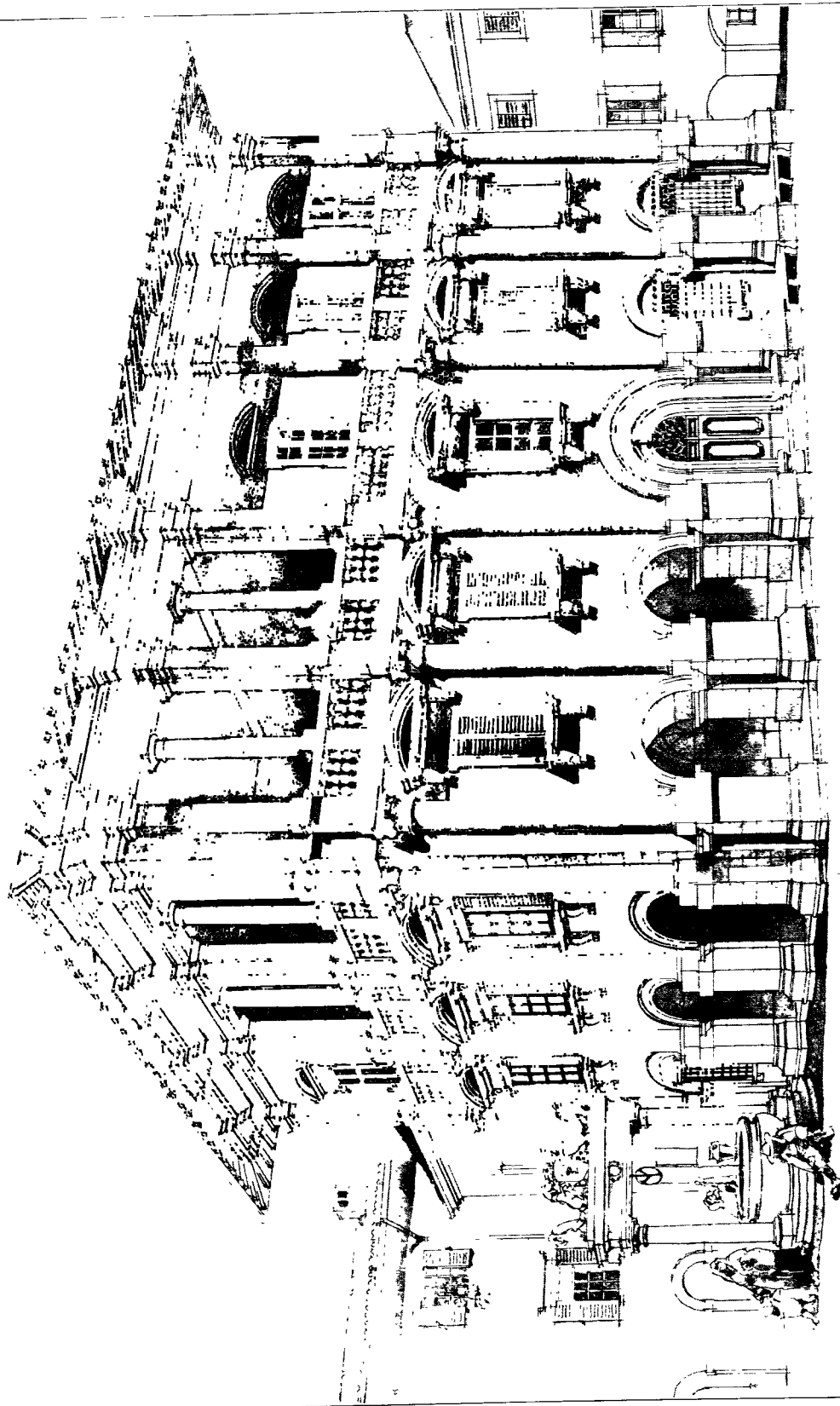
ARTHUR CATES PRIZE DRAWING BY LEON WILKINSON
WINNER OF THE PRIZE

R.B.A. PRIZES AND STUDENTSHIPS 1909 SELECTIONS FROM THE PREPARED DRAWINGS



ALTA MARIA PRIZE DRAWING BY ALAN G. BRACE, C. PLANT
AWARDED HON. MENTION AND BODAS AWARD





IL PALAZZO DE - NOBILI - MONTEPULCIANO - ITALY.

R.I.B.A. PRIZES AND STUDENTSHIPS 1909 - SELECTIONS FROM THE PREMIATED DRAWINGS.
 ARTHUR CALLE PRIZE. DRAWING BY LESLIE WILKINSON, WINNER OF THE PRIZE.

THE BEGINNINGS OF ARCHITECTURE.

Address to the Birmingham Architectural Association.

By J. L. BALL, *President*.

SINCE you have again favoured me with the opportunity of addressing you, it may not be inappropriate if I ask your attention to a line of thought closely connected with the subject we have been pursuing on the two former occasions. It is surely a healthy and stimulating thing for those who are engrossed with the exercise of our profession to find leisure sometimes to dwell upon the first principles of Architecture. There is little danger that people engaged in the practical details of life will be too much addicted to general speculation. The opposite fault is that which most easily besets us. We are too apt to forget that any philosophy of Architecture exists, to lose hold of first principles, to become indifferent to general laws. I invite you then, for one brief hour, to turn away from the exigencies of daily practice, and to carry your minds back to the beginnings of Architecture, as it first presented itself in the childhood of the world.

The origin of Architecture has been the subject of some pretty fables, too fantastic for serious criticism, and of several theories more remarkable for their ingenuity than for their science. The theory which is popular at the moment, and which has obtained the sanction of some eminent names, is more or less familiar to everybody. Architecture, according to this theory, springs directly from Building, as the flower springs from the plant. Goodness of building, carried to some point not easily definable, becomes in fact Architecture. We are asked therefore to consider Architecture not as an art in itself but as the immediate and unpremeditated result of good Building, its consequence and illustrious crown. This, or something like this, seems to be the substance of much vague teaching on the matter. The general theory has been admirably stated by a very distinguished thinker in an Address to the Students of the Institute, and we may take the statement as having authority. Architecture, we are told, is "Building and the other arts associated with it *continuously developed* along a certain line and in harmony with a guiding idea." In a word, it is to Building that we are to look for the origin of Architecture.

Now the history of Architecture and of Building, so far as it is known to us, affords no confirmation to this theory in whatever form it may be expressed. Nay, we have only to open our eyes and look about us to find grave reasons for doubting it. Do we really see Architecture emerging naturally and inevitably from continued good building? Is it not notorious that good Architecture has often been associated with bad building and bad Architecture with good building? What exactly are we to under-

stand by good building? In many important respects building in the present day is better probably than it has been in any previous age. We hear much about the degeneracy of modern building. It is easy enough to point out many ways in which it is inferior to the best building of, say, the thirteenth century. It has sunk into a group of mechanical trades. It has lost those fine qualities which constituted it a great handicraft, a great art. All this must be admitted, and assuredly with a very profound regret. But are there no compensations? Has not our own time witnessed some remarkable developments in building? We are certain that foundations are better laid now than they were in the thirteenth century, that walls are more strongly built, that harder and more durable cements are used, that our houses are drier, more sanitary, better warmed, better lighted, than ever before. New materials—iron, steel, concrete, bricks of unparalleled hardness, cements of extraordinary tenacity—have extended the powers of building. A wall may now be made capable of performing the work which in the thirteenth century would have required one of twice or thrice the thickness. The great constructions of modern times for railways, for docks, for warehouses, for factories, for light-houses, are not surpassed in strength and durability by any of the works of the Middle Ages, and will even sustain a comparison with the vestiges of Roman power. And it is to be remembered that the modern developments of building are, generally speaking, improvements in essentials. Building has its origin in the elementary and sordid necessities of mankind, in the necessity of shelter, in the necessity of protection. Everything therefore which contributes to make building more efficient in these two respects must be regarded as an improvement. We have here, then, in our own age, a continuous development of Building along certain lines and in harmony with guiding ideas. Has Architecture been produced from it? Do we perceive any signs that the best building of our age is exercising a beneficial influence on Architecture? On the contrary, it is either inimical to all Architecture whatsoever or is associated only with the most contemptible. And if this is so, what is the value of a theory which breaks down at the outset, which fails to account for a state of things with which we are all familiar?

The history of Architecture and of Building shows indeed many vicissitudes in both arts, but affords no evidence that their fluctuations are in any way connected, or that the progress of the one is dependent on the development of the other. Each has its periods of improvement and decadence, but the periods do not coincide. In England, for example, there can be no doubt that building continuously improved during the fourteenth and fifteenth centuries. Regarded only as *building*, King's College Chapel at Cambridge, Henry the Seventh's Chapel at Westminster, are not surpassed,

perhaps not equalled, by anything in the Middle Ages. Yet during the same period Architecture, in the opinion of the best judges, underwent a gradual but serious and well-marked decadence. In like manner Roman building maintained the high character which made it almost imperishable until building and every other art were swept away by Goth and Vandal. But Architecture steadily degenerated after the age of the Antonines.

The art of Building has no doubt had its fluctuations, its tides of good and evil fortune, but they are trivial compared with the frequent and revolutionary changes of Architecture. In all ages there has been good building and inferior building, a fact too often forgotten, since, as a general rule, it is only the best kinds of building which survive. But from the earliest periods of which we have any authentic knowledge down to the modern age building seems on the whole to have progressed in a methodical and cautious and somewhat uniform manner. Nearly all the great discoveries in building were made long before the dawn of regular history. The principle of the lintel, of the arch, the methods of constructing walls of masonry bonded and cemented together, the methods of constructing and securing roofs, these and many other principles of the first importance are the inventions of an antiquity so remote that all record of them has been lost. Modern building has its new materials and its other novelties, but in essentials it follows in the steps and uses the inventions of the primeval builders. Our choice lies between the lintel and the arch, just as theirs did in ancient Babylon and Thebes. Forty centuries have added no third principle of supporting a wall over a space.

"What a contrast to the immobility of Building are the rapid mutations of Architecture! its restlessness, its love of experiment, its renovation without end." Like Agriculture, Building is concerned with the elementary physical needs, which are much the same now as in the days of the mythic Prometheus. Architecture, like Poetry, like Music, shares and reflects the excitements and perturbations of the spirit.

Under what circumstances do we generally find that a new Architecture has made its appearance? A nation skilful in arms but unskilled in arts subdues one more intellectual, and the conquerors adopt the Architecture of the conquered. An invading race brings in a foreign Architecture and suppresses that which is native to the soil. A ferment in the popular mind leads to a revival of Poetry and all the arts, and a new Architecture springs into existence. An age of discovery culminates in great intellectual and religious changes, and Architecture is affected by the same influences which modify the other arts. The history of Architecture in our own country affords several conspicuous examples of changes which assuredly were not wrought by Building continuously developed. It may be well perhaps to mention a few of them.

That the buildings of our Anglo-Saxon ancestors were principally wooden buildings is as certain as anything can be which rests only on indirect evidence. But it is clear from the few examples of their stone structures which have come down to us that by the tenth century, if not earlier, they had attained considerable proficiency in the art of building. The remains of Saxon work may be justly admired for excellence of Building, but it is very evident that Architecture had hardly begun to be cultivated in England before the Conquest. The Normans came, bringing with them their own elaborate and highly developed Architecture. At once abbeys and castles of purely Norman Architecture sprang up all over the country, and the native style, such as it was, entirely disappeared. Clearly our Anglo-Norman Architecture did not emerge from building continuously developed. It was imported from without, and building had to be developed to meet the demands of the new Architecture.

From this point Architecture and Building seem to have gone on with very little change for about a hundred and fifty years. Doubtless there was some continuous development of both, but from the indications that remain the development must have been extremely slow. It is impossible to observe during this period any continuous development of building important enough to warrant us in attributing to it the momentous revolution in Architecture which marked the opening years of the thirteenth century. There is not perhaps another instance in the history of Architecture of a change so profound and decisive effected with such dramatic suddenness. The whole conception of Architecture was altered in a moment. A style entirely new took possession of the stage complete in every detail. We are so accustomed to the Architecture of the early thirteenth century that we hardly realise how startling an innovation it must have been to those who first beheld it. But let anyone after spending an hour in the nave of Durham Cathedral pass instantly into the retro-choir and he may still feel a faint reflection of their surprise.

For this abrupt and trenchant change of Architecture we certainly find no sufficient reason in the contemporary state of Building. It seems absurd to assign so great an effect to a cause so inadequate. And is there not another and very obvious cause? We know that about this period a great wave of intellectual excitement swept over the peoples of Western Europe. It is to this age that we trace back the first beginnings of modern Poetry and of the humane arts, the first dim indications of the sentiment of nationality and the sentiment of freedom. Men were awakening as out of a long sleep, and their minds were agitated by a dawning consciousness of great destinies. It would have been strange indeed if Architecture had not been transformed by this quickening and vernal influence.

By the middle of the thirteenth century, perhaps indeed long before that date, all the problems of

medieval building had been solved. From 1250 to the end of the fifteenth century Architecture ran through a series of changes which we have considered on a former occasion, and which it seems impossible to regard as developments of building. We pass on to the sixteenth century. When we compare a building of the beginning with a building of the end of that century we perceive a remarkable difference in the Architecture. Was this difference brought about by a continuous development of building? Is it not as certain as anything can be that the striking difference between the Architecture of Hampton Court Palace and the Architecture of Hatfield House, for instance, is the result of influences purely moral and intellectual? Whether the Renaissance was a good or an evil influence is not the question. Did it produce an effect upon Architecture? Surely here at least we are all agreed. The great Architectural changes of the sixteenth century are not to be attributed to building, but to new systems of thought, new forms of religion, a new learning, the discovery of new worlds, physical and intellectual. Building in this instance, as perhaps in others, gradually adapted itself to the conditions of the new Architecture.

We might multiply instances, but to what end? Have we not actually existing some of the originals and first firms of Architecture, often the sole memorial of races whose very names have perished? The origin of Architecture is involved in less obscurity than the origin of several of the arts. Thus the earliest Poetry which we possess has obviously received so much addition from successive minstrels that its primitive state can only be conjectured. Flint carvings and the paintings on archaic pottery tell us a little, a very little, of the infancy of Painting and Sculpture. Of all the arts Architecture retains the most numerous and the most important examples of the archaic period. Owing to the extreme durability of these objects, and perhaps also to the veneration in which they have been held, very many examples of the earliest Architecture still exist in all parts of the world. This fact is of course notorious, but do we always remember it? Suppose we were asked, in some examination paper of the Royal Institute, to name the earliest examples of Architecture in the British Islands, what answer should we give? The Saxon church at Bradford? The Roman villa at Brading? An Architecture existed in Britain which was already ancient before Roman or Saxon set foot on our shores. Whatever date antiquaries may assign to those celebrated monuments of which Stonehenge is the best known, there can be no doubt that they represent the earliest form of Architecture. In many parts of the world, on the continent of Europe, in Asia, in South America, are to be found works of a similar character, often the only records of extinct and long-forgotten races. Indeed, of our own Celtic predecessors in Britain and Brittany we know very little with any certainty,

nothing surely so important and authentic as the awful relics of their Architecture. All else that we know of them is vague and insignificant beside the trilithons of Stonehenge, the menhirs and obelisks of Locmariaquer, the great avenues of Carnac, and the gigantic megalith of Dol. These famous monuments, and others of the same kind, bring us face to face with Architecture in its earliest and rudest form. What do we learn from it?

The first thing that strikes us in Primitive Architecture is that it is almost independent of anything that can properly be called Building, and of external conditions generally. As nearly as possible it is pure Architecture and nothing else. "All art," says Pater in the *Studies of the Renaissance*, "tends to the condition of music." The observation is profoundly true. Of all the arts music is the most free from the pressure, the insistence, the stringency, of elements foreign to itself. The musician is forced to no conformity, no compromise, with either imperious practicalities or imperious Nature. His art, within its own sphere, can move with nearly perfect freedom. It conforms to no laws but its own. It formulates its own harmonies. Now to this condition of pure and unfettered art natural to music, all the arts constantly and inevitably aspire: but they can never attain to it, for they are as constantly and inevitably held in restraint by the necessity of obedience to the phenomena of Nature, or to the laws of Nature, or to the laws of Mind, or to the laws of Structure. The history of art is in the action of these opposing forces. Primitive Architecture approaches more nearly to the condition of music, the condition of pure art, than any Architecture of later ages.

In the second place we are impressed by the monumental character of Primitive Architecture. Those vast circles and avenues of trilithons and menhirs are in no sense buildings. They are monumental, commemorative, proceeding not from the world of practice but from the world of ideas. The purpose of Building is always the same. Its end is to provide for certain physical and secular needs, the need of shelter and the need of protection: the Roof for shelter and the Wall for protection. From these two fundamental elements all the other parts of Building have been slowly developed. But in Stonehenge and the other works of which we are speaking neither roof nor wall ever was or could have been. They are Architecture, not Building: monuments or shrines; emanating from the mind; at once the vehicle and the memorial of human thought and emotion; the habitations not of man but of man's ideas.

The monumental character of Primæval Architecture is most clearly shown in the pyramids of stones or cairns, and in the tall upright stones or menhirs, the "pillars of stone," which it was the custom to set up in order to mark the site of some important event, or the seat of worship, or the place

dedicated to peculiar observance. It is a custom which appears to have been almost universal among primitive races. We read in the oldest of books how the patriarch took a stone and set it up for a pillar to mark as sacred the place where he had seen a vision of angels. Of the same class are the "minars" or pillars of victory which Gibbon tells us marked the progress of the Turkish armies from Central Asia. Architecture has always retained much of its original monumental character: it has often been, and still sometimes is, a purely commemorative art. The pyramid and the obelisk, the choragic monument of Lysistrates and the column of Trajan, the monument of the Great Fire of London, the Nelson Column, the Vendôme Column, Eleanor crosses, market crosses, all these and innumerable others are directly descended from the primitive conception of Architecture as commemorative and memorial. Is it too fanciful to suggest that the minarets of the Mohammedan Mosque and the spires and pinnacles of the Mediaeval Church may also have been unconscious traditions from a long-forgotten past?

Closely connected with the monumental idea of Primitive Architecture is its third characteristic, namely, that it is communal not domestic. The original office of Architecture was to celebrate tribal or communal interests, an office which it has never entirely lost. Its chief triumphs have nearly always been displayed in edifices devoted to religion, or in those which are the ensigns of national or civic power. Stonehenge itself would appear to have been raised to illustrate a religion of which hardly anything is now known except its Architecture: wonderful still, though the gods no longer haunt its solemn avenues.

And in the fourth place we already perceive in this earliest Architecture the rudiments of order and design. Those huge blocks of unhewn stone were not piled together at random, or scattered over the ground "by the magic of some indigenous Amphion's music." Order, method, arrangement, something of regularity, a hint of design, are clearly perceptible. We can still trace the great avenues and circles of the plan. The trilithons show an intention, an incipient intention, of design. Even the idea of proportion may be said to be at least suggested by the regular alternation of pillar and interval.

Thus there rises before us the uncouth image of Primitive Architecture, the rudest and at the same time the most abstract that has ever existed. The impulses from which it sprang and the purposes which it was intended to serve were alike intellectual, but its freedom from conditions was the freedom of the savage. When we compare it with the Architecture of historic times we perceive a certain similarity and an immense difference. The monumental character, the illustration of ideas, and especially of communal ideas, the tendency towards order, method, definition, these features of the rugged ancestor have never been entirely lost

in the descendants. But the barbaric freedom, the vague spontaneity, soon disappeared. The next stage in the development of Architecture was its combination with Building. It is in obedience to conditions, to restraints, to the laws of structure, to the manifold pressure of external things, that Architecture has ever since fulfilled its destiny. We cannot however on this occasion pursue the subject any further, or dwell upon the difficulties which arose from the association of Architecture with Building, difficulties never perhaps entirely solved, or solved only at rare intervals in the long history of the two arts. Our time is limited, and I wish to devote the little that remains to us this evening to a brief consideration of some of the misapprehensions which surround the thorny subject of Proportion.

That Architecture is an art of Proportion might well seem to be one of those self-evident propositions which are commonly called truisms. It is certainly strange to find it regarded by some as a paradoxical and dangerous heresy. It is, perhaps, even more strange that the word Proportion should have come to be associated so exclusively with the Vitruvian or Palladian systems that many people seem unable to think of it in any other connection: or to grasp the idea, surely a very obvious one, that Proportion, good or bad, is an attribute inseparable from all Architecture whatsoever. To consider Proportion as meaning exclusively or even principally the Vitruvian rules is an error, though perhaps an excusable error. Many circumstances have contributed to give a singular prominence to those celebrated rules, the fortunate accident of their preservation, the authority which has so long been ascribed to them, their precise compact and logical form. But it would be absurd to suppose that there are no good Proportions other than the Vitruvian, or that Proportion is always to be calculated in the same kind of way, or reduced to a similar code of inflexible laws. The chief value of the Vitruvian rules to us is the evidence they afford that, as a matter of history, Architecture has been governed by proportional principles of some kind, that it has been under the regulation of law, and not done, as it were, at random. The system of Proportion which is set forth by Vitruvius may be good or bad. He may have been mistaken, nay, it is common knowledge that he was mistaken, in his references to Greek Architecture. We should hardly expect a writer of the Augustan age to give a very lucid or accurate account of the Proportions of Temples built four hundred years before his time. Vitruvius is cited, as Palladio and others may be cited, as an unimpeachable witness to the fact of Architecture having been, in certain periods, a well-defined system of Proportion.

That Greek Architecture in the fourth and fifth centuries B.C. showed a marked tendency to simple mathematical relations is indeed beyond dispute. This statement does not depend upon the authority

of Vitruvius. We know from observation that the Proportions of columns and all other parts of the Temple were regulated with minute care. In truth the only question is not whether the Greeks delighted in systems of Proportion, but whether they were not altogether too much addicted to system. We are told that it became the practice among the great Sculptors of the fourth century, Polycleitus for example and Chrysippus, to transfer the mathematical Proportion of part to part from Architecture to Sculpture. It may be urged, and probably with good reason, that this excessive tendency to system was ultimately fatal to Greek Art. But that is not the point. Was Greek Architecture during the great period regulated by a system of mathematical Proportions? To such a question there can be but one answer. And even if it be granted that the Greeks attributed an unreasonable importance to system, that surely does not excuse an equally unreasonable neglect of it.

How then stands the case in regard to Proportion? Is it proposed to dispense with it altogether in favour of something else? The suggestion is manifestly absurd. Architecture is inevitably Proportion of some sort, good or bad, noble or ignoble. The choice which lies before us is not between Proportion and no Proportion, but between good and bad Proportion. And can anyone seriously maintain that there is no difference between good Proportion and bad? "The corner gin-palace," as Mr. Lethaby admirably observes, has Proportions just as truly as a Greek Temple or a Gothic Minster. But in this case the Proportions are utterly bad, a mean and ignorant confusion, offensive to the eye and to the mind. Suppose any conceivable improvement in the materials of which the "corner gin-palace" is built, would the result even then be satisfactory? Assuredly not, so long as the whole presents the same features of unmitigated deformity. And if this be so, if this trenchant difference exists between good and bad Proportion, which is the wiser, to leave Proportion to the ambiguity of chance or to make it a subject of profound attention?

The importance of Proportion may be illustrated by a comparative study of the great schools of Architecture. But it may also be brought home to our minds, in perhaps a more striking manner, by familiar and commonplace instances. A man may profess in theory to be indifferent about Proportion. But suppose that he is designing a sash-window. He is surely not indifferent about the size and shape of the panes into which the window is to be divided, or content to let chance decide whether the height of the panes or the width shall be the greater. The attention which he very properly bestows upon such points as these, whatever he may call it, is nothing else than a care for good Proportion. Or, again, what else is the insistence upon a certain *thinness* in the courses of brickwork? It has long been the custom throughout

the Northern and Midland parts of England to build brickwork in excessively thick courses. Nevertheless we persist in the use of thinner bricks even at some increase of cost and difficulty. For what reason? For this reason only, that the narrower courses give a better Proportion to the work. To the uneducated eye it seems no doubt a trivial matter. But we know that it is not so. In Proportion, as in morals, it is the fine distinction, the scruple, that proves to be all-important.

Nor is it only in these small things that we may observe a general solicitude for good Proportion. The design of roofs furnishes many instances of it. Is what is called the *pitch* of a roof really a matter about which we are indifferent? Each of the materials used for roof covering requires its own *denominator*, or inclination of the angle of the roof, a well-ascertained minimum which in pure engineering would be constantly observed. But in Architecture do we restrict ourselves to any such minimum pitch? The fact is notorious that roofs, gables, chimneys, dormer-windows, are designed with at least the *intent* of a good Proportion in relation to the whole composition; with what results, in the best Architecture, we all know.

These facts are so obvious that it seems needless to pursue the matter further. A man may be very much averse to theories of Proportion and systems of Proportion, and yet when he is engaged in Architecture he is, more or less consciously, following the method of Proportion. It may be said with much justice that many mistakes are made and that the results in the present day are for the most part unsatisfactory. Modern Architecture is too often lugubrious and conventional, or, if it is marked by any originality, coarse and affected. Even those qualities which give a certain distinction to the commonplace Architecture of the eighteenth century are for the most part wanting to it. A sufficient reason for dissatisfaction truly, a good ground for complaint! But not a sufficient reason for neglecting Proportion altogether and lapsing into a state of anarchy. We can ill afford to throw away the little knowledge and skill we possess in the hope that fortune will do better for us than we can do for ourselves. The impartiality of chance is too serious a risk: we must load the dice.

The modern view of Proportion has been defined by one whose words deserve the serious attention of all students of Architecture in the phrase "organic fitness *plus* habit." It must be confessed with all diffidence that the definition seems a little vague, a little indistinct. What is the precise meaning of organic fitness in this connection? Is the quality of fitness to be understood of practical ends only, as for example of a window which exactly performs the required function of lighting and ventilating a room? If so then organic fitness cannot be denied to the windows of the "corner gin-palace," since they must be assumed to fulfil requirements of a practical nature and to serve

the turn. But if by organic fitness is meant not only practical qualities but also a fitness *to be seen*, seenliness, shapeliness, fine and characteristic form, what else is it but good Proportion? And even so the phrase may easily be misleading if used as a synonym for Proportion. A window may possess in itself the quality of organic fitness and yet may be very ill related to the composition of which it forms a part. We need not go far from this room to meet with instances of the kind.

If organic fitness may be taken as meaning the fulfilment of practical ends, combined with good Proportion, these are qualities of design. "Habit" however is not a quality of design but a mental prepossession which influences design. What is evidently meant is this, that our ideas on the subject of Proportion are the result of what we have always been accustomed to see. Now at the first glance this statement seems indubitable, but what are the facts? Do we find in actual experience that we like a bad Proportion any the better for seeing it continually? As well might we ask whether a dissonance in music is made more tolerable by frequent repetition. Neither ugly Proportions nor discordant sounds become pleasanter by custom. What length of time is needed to make a Proportion habitual? Nearly everybody has had the misfortune all his life to see bad Proportions, windows of single sheets of glass, l fry and massive buildings standing upon metal bars of extreme tenacity, corner gin-palaces. It is such bad Proportions as these that we are really in the *habit* of seeing. Do we find that this accustomed familiarity with bad Proportions makes them any more attractive to us? Assuredly not. The difference between good and bad Proportion remains as clearly marked in Architecture as the difference between harmony and discord in music.

Habit then, or custom, does not influence our ideas of Proportion to the extent of leading us to prefer the familiar bad to the comparatively unfamiliar good. Nor is there any reason to fear that habit will lead us to prefer the familiar good to the possible better, and check the tendency to progress. The whole history of Architecture proves the contrary. The truth is that the influence of habit has been very considerably overrated. Powerful it is, no doubt, but there are impulses of the human mind which are more powerful still, curiosity, the desire for novelty, the love of experiment, the stimulus of hope. Experience shows us that these impulses have been strong enough in the past to counteract the dead weight of habit, and what is true of the past may be confidently expected to be true of the future.

Those who have given even a partial and hesitating assent to the view of Architecture set forth in this and the preceding addresses will not need to be reminded that Proportion, important as it is, is not the end of Architecture but a means to an end. The purpose of Architecture, as of all the greater

arts, is the expression, or manifestation, or suggestion, of moods and ideas. What is needed for it is nothing less than an habitual elevation of mind. For it must never be forgotten that the human spirit is one: it alone is *intellectual*. We cannot divide it into a number of separate compartments, this for the sacred, that for the profane, this for the practical, and the other for the artistic. The mind in its unity is affected by all purposes which it entertains, and its productions, Architecture included, are raised with its elevation and debased with its debasement.

REVIEWS.

THE MOHAMMEDAN MINARET.

Pharos, and the Islam and Occident. By Herr Thiersch. F. v. Berlin 1909. Price 45s. net. Published by Verlag von H. v. Tiedemann.

In this work, which has just been added to the Institute Library, Herr Thiersch undertakes the task of proving that the Mohammedan minaret, with its superposed stories, owes its origin to the Pharos or lighthouse built at Alexandria by Ptolemy Philadelphus (235-287 B.C.). This building has long ago disappeared, the last traces of its existence having been swept away in 1882, when the fort built by Sultan Kaitbey (1468-1499 A.D.), portions of which rested on its foundations, was destroyed. Chapter I. is devoted to the history of lighthouses, with illustrations of those built by the Roman emperors. In Chapter II. Herr Thiersch gives the history of the Alexandrian Pharos, based on the descriptions of Moslem writers from the tenth to the fourteenth century, when the greater part of it was destroyed, chiefly through earthquakes. In Plate II. is published a conjectural restoration based on these descriptions by Prof. Aug. Thiersch, the father of the author of this work, showing that the Pharos of Alexandria consisted of three stories, the lower one 98 feet square and 196 feet high, the middle story 96 feet high, octagonal, and set back on the lower so as to leave a passage round, and the upper story circular and of slightly less height. Curiously enough the best general idea of it is that shown (page 86) in the mosaic of the Chapel of St. Zeno in St. Mark's, Venice, which represents the visit of St. Mark to Alexandria when he restored the shoemaker to health. This mosaic dates from the end of the twelfth century, at a time when the Pharos still existed, having been restored by Sultan Touloun (868-883 A.D.). A second drawing by Prof. Thiersch illustrates the tower at this period, and a third the last restoration in 1274. In all these drawings the design seems to be of too ornate a character for such a structure, and the lower story is Babylonian and not Egyptian in its style. Chapters III. and IV. give the plan and views of the Kaitbey fort, of which apparently the keep

only remains, and conjectural restorations of the section of the upper story of the lighthouse, suggesting how, in accordance with descriptions by classic authors of a similar tower in Rome, there was an inverted cone which reflected like a mirror down on to a lower plane on the principle of the *camera obscura* distant views of the town and country round. In Alexandria such an arrangement would have been of great value as showing the approach of vessels on the horizon. In Chapter V. Herr Thiersch describes the Moslem minaret and Christian towers, with over 300 photographs of all the most important examples in Egypt, Syria, Italy, Persia, and India, some of which are perhaps outside his subject, but they form a parallel of great interest. For the elucidation of his theory the most valuable are those of the minarets of Sultans Toloun and El Hakim in Cairo, as they are the earliest examples in Egypt, and the lower story in each case, though of far less height, may be taken as a fair copy of the Alexandrian lighthouse. For the winding staircase round the Tooloun minaret and its mobile story we must look to another source, of which an illustration is given on page 140—viz. the minaret at Samarra, a circular tower of six stories with a spiral ascent round it. Samarra is seventy-two miles south of Bagdad and about midway between Navech and Babylon, in the land of the ziggurats or observatory towers of the Assyrians, so that here is a much earlier source. It is true that the Assyrian ziggurats were square on plan, but in the example at Khorsabad, illustrated in Place, and in Perrot and Chipiez, the winding ascent is carried round similar to that of the lower story at the Tooloun minaret, but the change from a square to a circular plane at Samarra would be made on account of its simpler construction and its material, brick. Now Sultan Tooloun, who was born in Bagdad in 835, spent some years at Samarra, from which city he came to Fostat (old Cairo), so that there is every probability of his having based his minaret in Cairo on the example there, which was built by the son of Haroun el Raschid in the first quarter of the ninth century. In the El Hakim minaret there is no winding ascent, and in later examples the lower story, though always square, is the lofty base, only of the octagonal or circular minaret, and the projecting balconies, which correspond to the passages round the stories of the Alexandrian lighthouse, are raised to the top of the second story. The variety of design in the minarets is well shown in Herr Thiersch's illustrations, as also in their plans: thus in the oldest minaret in Damascus, built by El Walid in 710 A.D., the lofty tower is square, as are also those at Jerusalem and Aleppo, and the upper stories are of comparatively slight height. There are many such examples in Cairo. In the minaret of the mosque at Kairwan, in Tunisia, all three stories are square on plan, but throughout North Africa this type would

seem to have been preferred. In Persia they are invariably circular, of great height, crowned with a verandah and small turret above. In the latter portion of the work Herr Thiersch gives the plans of a large number of mosques which have little to do with his theory, but are valuable as a parallel. There are two plates at the end of the volume of Roman coins, on which towers or lighthouses are shown, and these and the numerous representations in Roman bas-reliefs, which are illustrated in the first chapter, show great research on the part of the author. The whole work forms a valuable addition to the history of the celebrated Pharos at Alexandria and the subsequent development of the minaret.

R. PHENE SPIERS, *Tr.*

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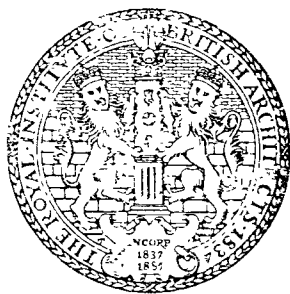
Spons' Architects' and Builders' Pocket Price Book: Materials, Tools, and Prices. The most complete and latest by Charles Joseph Spon, Revised by S. J. Spon. London: T. & F. N. Spon, 1909. Price 3s. net. F. & F. N. Spon, Ltd., 57 Holborn, S.W.

We cannot pretend to vouch for the accuracy of every item in the latest edition of *Spons' Price Book*, but we can say without reservation that it contains a most valuable collection of facts and figures printed on thin but opaque paper, intelligently arranged and neatly bound within the limits of a pocket. Moreover, in a cursory perusal we have not struck an error.

There are a few simple illustrations where necessary, and the information is condensed and tabulated in a form which will be very useful to those readers who are cramming for examinations, and still more so to those who have promptly forgotten all they ever crammed.

The editor invites suggestions calculated to make the book more useful, and it must be remarked that it is difficult to respond; but we notice that under "Garages" the usual sizes of motor-cars are given, which will certainly be helpful to architects who do not keep their cars. Extending this idea, perhaps in another edition room will be found for the dimensions of a tennis lawn, skittle alley, billiard table, &c., or even the height of a seat, champagne bottle, or handrail and other commonplace data which one ought to know. Personally, we never can remember the size of a grand piano-forte, although we sometimes like to show it on plan; but we have never forgotten an occasion when nobody in the office where we then worked could say how long a drawer should be in order to hold a pair of trousers. Eventually it occurred to us to measure our own garments, and thus were the client's instructions fulfilled.

J. NIXON HORSFIELD, *Arch.*



9 CONDUIT STREET, LONDON W., 6th March 1909.

CHRONICLE.

Election of the Royal Gold Medallist, 1909.

The Special General Meeting summoned in accordance with By-law 64 to elect the Royal Gold Medallist for the current year was held last Monday, when it was moved from the Chair that, subject to His Majesty's gracious sanction, the Royal Gold Medal for the promotion of Architecture be presented this year to Dr. Arthur John Evans. The President, Mr. Ernest George, in putting the proposition, observed that Dr. Evans's long and arduous work of exploration in Crete was well known to them all, and had had most important results in bringing to light the great prehistoric Palace of Knossos, of which Dr. Evans had given them a description in a Paper read at the Institute some six years ago [JOURNAL, 20th December 1902].

Mr. GEORGE HUBBARD, F.S.A. [F.], said he thought the Council had made an extremely wise selection in putting forward Dr. Arthur John Evans as a worthy recipient of the greatest honour which the Institute could bestow. Dr. Evans's investigations had resulted in the most important discoveries that had been made in the last century. His excavations in Crete revealed the art that led up to the civilisation of Greece, and the result of his excavations there necessitated the rewriting of that portion of the history of architecture.

The motion, having been formally put from the Chair, was carried unanimously.

Barred Competitions.

At the Business Meeting last Monday, Mr. K. Gammell A., in accordance with notice duly given and printed on the Agenda, put the following question to the Chairman:—

“Whether in view of the letter signed by Jos. Routledge on behalf of the Stanley Urban District Council, Durham, appearing in the *Builders' Journal* for 10th February, any steps have been taken by the Council (other than by publication of the notice in No. 7 of the JOURNAL) to induce the members referred to to observe the *esprit de corps* reasonably to be looked for from the members of this

Institute; and, if not, whether steps will be taken to exercise a deterrent influence on members who enter competitions which are considered objectionable by the Council of this Institute.”

Mr. GAMMELL said that to prevent any misconception he wished to state that the matter was not brought forward in any spirit of controversy: his object was to elicit what the Council's views were as to the course to be followed in such cases in the future. He could not conceive that very much was required in the way of explanation, and certainly nothing in the way of apology for taking up the time of the Meeting. This was a matter on which he did not speak alone: he had been asked by several architects, his own particular friends, to bring the matter forward. He had also written letters to architects in the provinces, and had ascertained that there was a very considerable feeling against the practice of a certain class in the profession viz. those who persisted in taking part in competitions which by reason of their conditions were obnoxious, in the face of a request from the Institute Council to refrain from doing so. To avoid the accusation that he was raising a storm in a teacup in bringing this question forward he was prepared if required to justify his action by calling attention to a number of cases, but he thought they would be content to take one, which turned on some letters recently published in one of the professional papers. These letters, which with the Chairman's permission he would read, were as follows:—

29th January 1909

Mr. Joseph Routledge, Secretary, Council Offices
Stanley, Co. Durham.

NEW COUNCIL OFFICES.

DEAR SIR.—We are obliged for yours of 28th inst. in reply to ours.

We shall not, of course, compete, neither do we think you are likely to obtain designs from any architects of standing with the conditions you issue.

Yours faithfully,

SPEAR AND BEARAN

The reply to this letter ran as follows:—

Stanley, R.S.O., Co. Durham

30th January 1909

Messrs. Spear and Bearan, Architects, &c.,
Borough Chambers,

Wharton Street, Cardiff

Re NEW COUNCIL OFFICES.

GENTLEMEN.—I beg to say in reply to yours of the 29th inst. that we have no less than sixty architects who have paid their £1, and got the block plan of the site, and out of the society there are some of the best architects in the North and South of England, and some of them members of the Royal Institute of British Architects.—Yours faithfully,

JOS. ROUTLEDGE.

So much for the letters. Practically nothing more remained to be said except to explain his reason for

bringing up this matter. He wished to ascertain, both on his own behalf and he did not hesitate to say on behalf of those who must constitute the great majority of the Institute, what steps the Council proposed to take in the future, in view of the fact that the By-laws were now under revision, to put an end to this state of things whereby a section of the Institute—he ventured to hope a small one, but nevertheless a section—had it in their power to profit at the expense of other members of the Institute. He could see no difficulty in the way of so revising the By-laws as to make them act as a very great deterrent, and he looked to the Council to safeguard the interests of those whom it gave him very much pleasure to entitle the gentlemen of the Institute.

MR. GEORGE HUBBARD, F.S.A., F.R., said he thought the point rather turned on the fact that at the present time the Council were not in a position to do more than advise members in these matters. Personally he was inclined to think that the Institute ought to have more power than that, and he sincerely hoped that the By-laws Committee would consider the advisability of inserting a provision in By-law 22 giving the Council power to deal with members who took part in competitions which had been barred. At the present time the better architects stood loyally by the Institute, and while they did so it was putting a premium upon incompetency, because the incompetent, who might not be quite so loyal, had a very much better chance of winning a competition when the best men would take no part in it.

THE PRESIDENT said that the question raised by Mr. Gammell had been frequently discussed in the Council, and they regretted very much the present condition of things. It was sad to reflect that there were men in the profession who were willing to disregard all that was for the best interests of their calling. The feeling on the Council was that it would not be wise to put coercion on members of the Institute—they were not at liberty to do that. They must trust to the right feeling of members. He was afraid there would always be black sheep, but whether it was wise to penalise them was another question altogether, and one that required very serious consideration.

MR. GAMMELL, asking leave to speak again, said that there was a very strong feeling in the Institute in regard to this question, and he thought the Council would hear further on the matter. If he should be able to raise the question at a future time, he should be prepared with arguments in support of his contention that some action was necessary and in the best interests of the Institute.

MR. H. H. STATHAM, F.R.: Can the question be referred to the By-laws Committee to consider?

MR. LEONARD STOKES: As a matter of fact the By-laws Committee are considering it, if it is any satisfaction to Mr. Gammell to know it.

MR. GAMMELL: It is a very great satisfaction.

Regulations for International Architectural Competitions.

MR. JOHN W. SIMPSON [*Vice-President*], Hon. Secretary of the British Section of the Permanent Committee of the International Congresses of Architects, and British Delegate at the International Commission which recently met at Paris to decide upon the Regulations for International Architectural Competitions, sends for publication the subjoined translation of a circular letter addressed to members of the Permanent Committee, together with the actual text of the Regulations as finally adopted. An English translation of the Regulations, with Mr. Simpson's Report as Delegate, appeared in the JOURNAL for 9th January last:—

"MESSIEURS.—We have the honour to send you the 'Regulations for International Competitions,' as drawn up by the Special Commission in November last.

"You will see that the end in view has been to inform promoters of such competitions as to the best means of ensuring that loyal co-operation which experience shows to be necessary in order to render them completely successful.

"If promoters of International Architectural Competitions will place themselves in communication with the Comité Permanent they may rely upon its good will and assistance. The various sections of the Comité will receive notification of the opening of an International Competition in the case of the Bureau

"being desired to obtain the advice of experienced architects in preparing the conditions of competition;

"being asked to submit to the promoters of the competition a list of architects from which the assessors might be selected;

"being asked to nominate the assessors.

"We trust that you will make known the annexed 'Recommandations' and the assistance which the Comité Permanent is prepared to give especially as regards assessors.

"H. DAUMET, *President*,
Membre du l'Institut."

CONCOURS INTERNATIONAUX D'ARCHITECTURE.

La Commission internationale des Concours publics d'Architecture est d'avis qu'en matière de Concours internationaux d'Architecture il y a lieu de faire les recommandations suivantes:

1. Les concours internationaux devraient être réservés aux cas exceptionnels et de caractère vraiment international.

2. Les concours internationaux peuvent être ouverts à tous les architectes et sans invitation, ou bien restreints et par invitation.

Les concours restreints et par invitation peuvent être à un seul degré:

Les concours ouverts à tous se feraient de préférence à deux degrés.

3. Les conditions des concours internationaux sont les mêmes pour tous les concurrents.

Il ne devra être tenu compte d'aucuns dessins, modèles ou pièces fournis en plus de ceux prescrits par le programme : ces dessins, modèles ou pièces en plus ne seront pas exposés.

4. Le programme doit exprimer en termes précis les conditions du concours : il ne devra comprendre aucuns *desiderata* facultatifs.

5. Dans les concours restreints et par invitation, le programme peut être très détaillé et prescrire un développement complet des projets.

Dans les concours ouverts à tous, le programme devra exprimer en termes généraux les exigences techniques et limiter le nombre et l'échelle des dessins au minimum nécessaire pour l'intelligence du projet par le jury.

Le programme indiquera que les projets doivent être anonymes et revêtus seulement d'une devise pour le premier degré, et qu'ils doivent être signés pour le second degré.

Il est interdit aux concurrents, sous peine d'exclusion, de faire aucune démarche tendant à rompre l'anonymat.

6. Dans les concours à deux degrés on appliquera à la première épreuve les conditions du concours ouvert à tous, et à la deuxième épreuve les conditions du concours restreint et par invitation.

Ne pourront être admis à la seconde épreuve que les lauréats de la première.

7. Le programme du concours devra, autant que possible, être publié et mis à la disposition des concurrents dans tous les États à la même date.

Tout projet non expédié le jour de la clôture du concours sera exclu; le timbre d'expédition fera foi.

8. La rédaction du programme doit être faite d'après les conseils d'architectes expérimentés.

La publication en sera faite dans la langue française.

9. Le jury est nommé par l'Administration qui ouvre le concours; il est désirable que l'Administration, avant de nommer les jurés étrangers, se mette en relation avec le Comité permanent des Congrès internationaux des architectes.

Le jury d'un concours international d'architecture doit se composer d'architectes tous de nationalité différente, dont un sera du pays où est ouvert le concours. Un magistrat désigné par l'Administration qui a ouvert le concours présidera, sans voix délibérative, à toutes les opérations pour en assurer la régularité.

Les membres du jury, par le seul fait de leur acceptation, déclarent qu'ils n'ont et n'auront directement aucun intérêt matériel dans le résultat du concours.

10. Il serait préférable dans les concours internationaux, et surtout dans les concours préliminaires, qu'il n'y eût pas de limite étroite de dépense, afin de laisser une certaine liberté aux conceptions artistiques des concurrents.

Dans le cas où la somme disponible pour l'exécution du projet du concours serait prescrite, le programme devra fournir tous les éléments nécessaires pour obtenir une estimation approximative uniforme.

11. Le montant total des prix à distribuer devait être de 24 pour cent de la dépense pour les travaux jusqu'à 2 500 000 francs; 2 pour cent jusqu'à 5 millions de francs; 1½ pour cent au-dessus.

Il faut admettre comme principe que l'exécution du projet soit confiée à l'architecte couronné, sous les conditions qui sont en vigueur dans le pays du concours.

Le montant du prix ne sera pas déduit du montant des honoraires à payer.

Au cas où la personne ou la corporation qui ouvre le

concours désire se réserver la faculté de pouvoir se passer de l'architecte classé premier, le programme devra contenir les conditions d'indemnité.

Dans le cas où aucune exécution n'aurait lieu, la même indemnité serait due.

Dans tous les cas, les auteurs de projets envoyés conservent la propriété artistique de leur projet et sur l'édifice qui n'en est qu'une reproduction.

12. Pour le concours à un seul degré, tous les projets seront exposés dans un endroit digne, et suffisamment longtemps, pour que tous les concurrents soient en état de visiter cette exposition qui devra être annoncée d'avance dans les publications professionnelles.

Pour les concours à deux degrés, il n'y aura pas d'exposition après le premier jugement; toutes les esquisses devront être conservées sous scellés pour être finalement exposées en même temps que le concours définitif.

Les lauréats du premier degré auront le droit de prendre un calque de leur esquisse pour l'élaboration de leur projet définitif de concours.

Le rapport complet et raisonné du jury sera publié avant l'ouverture de l'Exposition et porté à la connaissance de tous les intéressés.

Pour copie conforme :

Le Président de la Commission.

P.-J.-H. CUYPERS,
d'Amsterdam.

Le Secrétaire général.

J.-M. POUPINEL,
de Paris.

Ont signé.

MM. L. NEHR	de la section allemande.
A. WEBER	autrichienne.
F. DE VESTEL	belge.
J. W. SIMPSON et A. CHAUSSÉ	canadienne.
CLEMMENSEN et M. NYROP	danoise.
J. M. CABELLO Y LAPIEDRA	espagnole.
A. LOUVEF	française.
JOHN W. SIMPSON	de la Grande-Bretagne.
C. FITTLER	hongroise.
G. MORETTI	italienne.
N. MARISCAL	mexicaine.
P. J. H. CUYPERS	des Pays-Bas.
V. TERRA	portugaise.
F. SCHECHILL	russe.
G. CLASON	suiçoise.
APOSTOLIDIS	turque.

Paris, 29 novembre 1908

The Revised Convention of Berne : Architectural Copyright.

A Blue-book has just been presented to Parliament containing the Correspondence respecting the Revised Convention of Berne for the Protection of Literary and Artistic Works signed at Berlin 13th November 1908, with appendices setting out (1) the Articles of the Revised Convention, (2) the Convention of 1886 and the Additional Act of Paris 1896, and (3) a Report of the Proceedings of the International Diplomatic Conference whose labours have resulted in the new Convention.

Printed below are Articles 1, 2, and 4 of the Revised Convention, from which it will be seen that the Resolutions adopted at the International Congresses of Architects at Madrid (1904), London

(1906), and Vienna (1908), have been given effect to, and that the privileges of copyright hitherto enjoyed by painters and sculptors the Revised Convention agrees should be extended to architects. Under the Convention of 1886 among "artistic works" entitled to protection were "works of design, painting, and sculpture . . . plans, sketches, and plastic works relative to architecture." The Revised Convention puts the architect on the same footing as the other artists by introducing the word "architecture" between "painting" and "sculpture." This change was made up in the proposition of the delegates of the French Government, acting upon the representations of the Société Centrale des Architectes français. The Institute's support of the proposal was communicated to the Secretary of State for Foreign Affairs in a letter addressed from the Institute by the President and Hon. Secretary in August last JOURNAL, 26th September 1905¹.

Article 2 of the Revised Convention replaces Article 4 of that of 1886, and has been recast in a clearer form. Sir Edward Grey, in his instructions to the British Delegates, stated that His Majesty's Government, while seeing no objection in principle to the proposed inclusion of works of architecture within the full sphere of copyright, were disposed to regard the proposal as impracticable. He advised the Delegates, however, to give careful attention to the arguments advanced in its favour, and if they thought it practicable they were authorised to accept it. The British Delegates, reporting the result of the Conference, observe:—"In regard to works of architecture we were convinced by the arguments advanced by M. de Borchgrave, one of the Belgian delegates, that the protection of works of architecture, as apart from the plans, &c., from which such works are constructed, is perfectly feasible. He cited two cases" (*Dunze v. Guillemin*, Tribunal Civil de Liège, 7th June 1902; *Christensen v. Henriksen & Andersen*, Cour Supérieure de Copenhague, 17th Sept. 1906) "where in the first case judgment was given in favour of the defendant on the ground that the work he had apparently copied had no original character or artistic merit such as to entitle it to protection: in the second case judgment was given for the plaintiff, who had designed and built a chateau which had been copied by the defendant. In the latter case the work was deemed to possess the qualities of originality and artistic merit."

The following is a translation from the French of Articles 1, 2, and 4:—

Article 1.—The Contracting States are constituted into a Union for the protection of the rights of authors over their literary and artistic works.

Article 2.—The expression "literary and artistic works" shall include any production in the literary, scientific, or artistic domain, whatever may be the mode or form of its reproduction, such as books, pamphlets, and other writings; dramatic or dramatico-musical works, choreo-

graphic works and pantomimes, the acting form of which is fixed in writing or otherwise: musical compositions with or without words: works of design, painting, architecture, sculpture, engraving, and lithography; illustrations, geographical charts: plans, sketches, and plastic works relative to geography, topography, architecture, or science.

Translations, adaptations, arrangements of music, and other reproductions in an altered form of a literary or artistic work, as well as collections of different works, shall be protected as original works without prejudice to the rights of the author of the original work.

The contracting countries shall be bound to make provision for the protection of the above-mentioned works.

Works of art applied to industrial purposes shall be protected so far as the domestic legislation of each country allows.

Article 4.—Authors who are subjects or citizens of any of the countries of the Union shall enjoy, in countries other than the country of origin of the work, for their works, whether unpublished or first published in a country of the Union, the rights which the respective laws do now or may hereafter grant to natives as well as the rights specially granted by the present Convention.

The enjoyment and the exercise of these rights shall not be subject to the performance of any formality, such enjoyment and such exercise are independent of the existence or protection in the country of origin of the work. Consequently, apart from the express stipulations of the present Convention, the extent or protection, as well as the means of redress secured to the author to safeguard his rights, shall be governed exclusively by the laws of the country where protection is claimed.

The country of origin of the work shall be considered to be: in the case of unpublished works, the country to which the author belongs; in the case of published works, the country of first publication; and in the case of works published simultaneously in several countries of the Union, the country the laws of which grant the shortest period of protection. In the case of works published simultaneously in a country outside the Union, and in a country of the Union, the latter country shall be considered exclusively as the country of origin.

By published must be understood, for the purposes of the present Convention, works, copies of which are issued by a publisher. The representation of a dramatic or dramatico-musical work, the performance of a musical work, the exhibition of a work of art, and the construction of a work of architecture shall not constitute a publication.

The R.I.B.A. Examinations in Australia and Canada.

Reports have been received from Melbourne and Toronto giving the results of the Examinations qualifying for candidature as *Associate R.I.B.A.* held in those cities in the month of November last.

In Melbourne, the following were examined and passed—viz.

HARRAL: William Haigh; c/o Messrs. Ussher & Kemp, Piell's Buildings, Collins Street, Melbourne.

LA GERKE: Alfred Romeo; 1 Grove Road, Hawthorn, Melbourne.

POWERS: Ernest Marston; Fourth Floor, Citizens' Buildings, Collins Street, Melbourne.

In Toronto, of four candidates examined, the following two passed—viz.

GORDON: Donald MacPherson; c/o Messrs. Ross & MacFarlane, Beaver Hall Hill, Montreal.

RICHARDS: Harold Buckwith; 824 Second Avenue, Detroit, Michigan, U.S.A.

¹ *The Architect*, 8th and 15th August 1908.

The Prize Drawings.

In the present issue is given, by direction of the Council, a selection of the Prize Drawings in the recent competitions.

The following selection from the premiated designs and drawings, together with some studies submitted by candidates for the Intermediate Examination, will be exhibited during the next few months under the auspices of the Allied Societies:—

The Royal Institute Silver Medal (Measured Drawings).—Drawings of the Church of the Madonna di San Biagio, Montepulciano (4 strainers), by Mr. Ernest W. Wray (under motto "San Gallo"), awarded the Silver Medal and Ten Guineas; drawings of Lavenham Parish Church (3 strainers), by Mr. Alan G. Brace (under motto "Flint").

The Soane Medallion.—Designs for a Casino on the Borders of a Lake: 4 strainers by Mr. Anthony R. Barker (under device "Red Seal"), awarded the Medallion and £100; 3 strainers by Mr. Adrian Berrington (under motto "Centrelines"), awarded Hon. Mention and Twenty Guineas.

The Owen Jones Studentship.—Drawings by Mr. S. Herbert Maw (1 strainer), awarded a Prize of Twenty Guineas.

The Pugin Studentship.—Drawings by Mr. Sydney H. Miller (4 strainers), awarded the Medal and £40; Drawings by Mr. H. Hubert Fraser (1 strainer), awarded Hon. Mention and Ten Guineas.

The Tate Prize.—Designs for a Covered Arcade of Shops: 2 strainers by Mr. Richard M. M. Gumm (under motto "Clarion"), awarded the Certificate and £30; 1 strainer by Mr. B. E. Lisle (under motto "Last Man In"), awarded a Prize of Fifteen Guineas; and 1 strainer by Mr. S. Herbert Maw (under motto "Dezzero"), awarded a Prize of Ten Guineas.

The Grissell Gold Medal.—Design for a Landing Stage to a Royal Palace from a Lake: 2 strainers by Mr. Douglas W. Day (under motto "Dies"), awarded the Medal and Ten Guineas.

The Arthur Cotes Prize.—Drawings by Mr. Leslie Wilkinson (2 strainers), awarded the Prize of Forty Guineas.

A selection of the Testimonies of Study submitted for the Intermediate Examination.

The Horse Guards' Parade.

Mr. F. W. Speaight is showing at his photographic studios in Bond Street a series of drawings illustrating his idea for the complete transformation of the Horse Guards' Parade and the eastern half of St. James's Park. The drawings are by Mr. C. E. Mallows (F.R.S.), and they represent the Parade with the western end closed with a semi-circular terrace, reached by ten steps, behind which a revival of the old canal lies between two broad walks, flanked by yew hedges. This avenue leads

to a "place" opposite Marlborough Gate, forming a junction with the Mall and with another straight road to the India Office. The road which passes the Parade is proposed to be made the part to the right leading straight to the Duke of York's Steps, which would thus be brought into relation with the whole scheme. The whole area to the west of the Admiralty and the "surround" of the Parade are to be flagged or otherwise paved. Around the Parade would stand the statues of our great soldiers, removed from other parts of London, so that the Parade and the issuing avenue would become a sort of "Siegesallee."

Smoke Abatement Exhibition.

At Sheffield a few days ago Sir Oliver Lodge, in the absence of Sir W. B. Richmond, R.A., opened the Smoke Abatement Exhibition organised by the Sheffield Federated Health Association. The exhibition will remain open three weeks. Its object is to educate manufacturers and the public generally with regard to the injurious effects of smoke, and to show the extent to which smokeless power producers, such as gas and electricity, can be employed for manufacturing purposes. Sheffield has long had a bad name for smoke. For some years a smoke abatement society, by private prosecutions, sought to bring about a better state of things. The Corporation now has a smoke department, with a number of inspectors, and there are frequent official prosecutions.

The exhibits include an apparatus shown by an Oxford company for rendering large chimney stacks in manufacturing districts unnecessary, and for destroying all smoke on board steamers. By a series of minute jets of water, forced at high velocity under pressure, the smoke is completely washed as it passes from the furnace. Mr. A. E. Blizzard, of Congleton, is showing an apparatus which can be fixed to any boiler. By means of intensely hot air, delivered at the point where the smoke issues from the grate, all the smoke is consumed. There are many gas and electric heaters and cookers, and an air purifier is exhibited which cleanses the air before it passes into the building. This has been adopted in a number of premises in smoky parts of Sheffield with great success.

Conferences have been arranged for the discussion of the following subjects:—"Smoke and its possible destruction," "Stoking, mechanical and otherwise," and "The Work of the Hamburg Manufacturers' Smoke Abatement Society." The Coal Smoke Abatement Society of London is assisting in the promotion of the conferences.

Sir Oliver Lodge, declaring the exhibition open, said that the earth was beautiful in the extreme in places where nobody lived, but where people lived together in large numbers they had taken no precautions to keep the earth beautiful. In heating,

the ideal was a combination of the open fire method and pipes. They should heat the passages by hot air and have open fires to give radiating heat in the rooms and to draw warm air from the passages. Ordinary coal fires were very imperfect and primitive. A savage could burn coal as we burnt it in our grates. A better way was to separate coke and gas at the pit, and burn only gas in the house. He was convinced that there was a great future for gas for heating purposes and of electricity for lighting. He hoped that some town in England would try the experiment of having gas made at the coal pit and brought to the houses in pipes for all purposes. It should then render the transportation of crude coal into the town. One or two towns were already thinking about it, but there were so many vested interests in the coal.

Royal Sanitary Institute: Henry Saxon Snell Prize.

The Henry Saxon Snell Prize, in the gift of the Royal Sanitary Institute, and consisting of £50 and the Medal of the Institute, is offered in the current year for an Essay on "The Principles of Heating and Ventilating Public Buildings, with descriptive details and illustrations of the best methods." The Essay is to consist of not more than 5,000 words, and to be illustrated by drawings or sketches. Two competitors of different professions or crafts may join in sending in an Essay and Plans. Essays must be delivered or addressed to the Secretary of the Sanitary Institute, 90 Buckingham Palace Road, S.W., before 4 p.m. on or before 31st August 1909. Full particulars may be obtained from the Secretary of the Royal Sanitary Institute, Mr. E. White, Wallis, Margaret Street, W.

Exhibition of Christian Art, Dusseldorf.

An Exhibition of Ecclesiastical Art, under the patronage of the Crown Prince of Germany, is to be held at Dusseldorf this year from the 15th May till the 3rd October inclusive, in the Palace of Fine Art, Kaiser Wilhelm Park. The Exhibition will comprise (1) a retrospective department; (2) contemporary works of an ecclesiastical character; (3) a department of ecclesiastical architecture; (4) a department for reproductions. Works of painting, sculpture, metal engraving, architecture, in the arts of drawing and reproduction as well as of applied art, when the design and execution of the latter bear the stamp of originality and distinction, will be admitted. Works of foreign artists are invited, but the latter will be admitted only after arrangement with the Fine Art Committee. Works sent in are to be submitted to a jury selected by the Fine Art Committee, and will be placed or hung by a special commission. Applications for space must be sent in in duplicate by 10th March, the works themselves to be delivered between the 22nd March and the 10th April.

Applications should be sent direct to the "Geschäfts-Stelle der Ausstellung für christliche Kunst, Dusseldorf, 1909." Expenses of carriage of exhibits will be defrayed by the directors of the Exhibition. Drawings and photographs intended for the illustrated catalogue should be sent to the Exhibition Bureau by the 15th April. A letter has been addressed to the Council by Dr. Max Schmidt, Director of the Royal Technical University, Aix-la-Chapelle, and a member of the Fine Art Committee, inviting British architects to take part in the Exhibition. A prospectus of the Exhibition may be seen in the Library of the Institute.

The late Mr. Cole A. Adams F.R.S.

Mr. Cole Alfred Adams, who died on the 21st February, aged sixty-four years, was elected Associate of the Institute in 1864 and Fellow in 1880. He had been a member of the Competitions Committee since its formation in the early 'eighties, was a member of the Council from 1884 to 1886, and had served for some years on the Board of Examiners. He was hon. secretary (in conjunction with Sir Aston Webb, R.A.) of the old Competitions Memorial Committee, which succeeded in effecting many reforms in the management of architectural competitions, including the general appointment of a professional man as assessor. Among Mr. Adams's principal works are the Memorial Hall and Institute at Wargrave, the parochial hall at Upper Tooting, the enlargement and improvement of the church of St. Mary Magdalene in the same district, and the chancel of the church of St. Andrew at St. Ckwell Green, S.W. The Hon. Secretary, in announcing the decease at the Institute Meeting last Monday, referred to Mr. Adams's connection with the Architectural Association, of which he had been one of the most genial Presidents. By his instrumentality a special committee was appointed to consider how the work of the Association could be extended and revised, and many important alterations and improvements resulted from the committee's labours. On the motion of Mr. Graham, it was resolved that an expression of regret for the loss the Institute had sustained be entered on the Minutes of the Meeting, and that a message of sympathy and condolence be communicated on behalf of members to the widow and children. A memoir will appear in a future issue.

Architects' Benevolent Society.

The Annual General Meeting of the Architects' Benevolent Society will be held in the rooms of the Royal Institute on Tuesday the 9th inst., to receive the Annual Report, to elect members of Council, and for other business. Mr. Ernest George, the President, will take the chair at 5 p.m. It is hoped that there will be a good attendance of members.

THE "REORGANISATION" AT SOUTH KENSINGTON.

4 Queen's Square, Bloomsbury, W.C. :
25th February 1909.

To the Editor JOURNAL R.I.B.A.—

SIR,— In the JOURNAL of the 20th inst. is reprinted Sir Caspar Purdon Clarke's letter to *The Times* of the 11th inst. Upon the 13th *The Times* published two letters, both referring to Sir Caspar's, which might well be also reprinted. The first, from Sir George Birdwood, is characteristically full of interesting history—in this case not invariably flattering to one's insular pride; while the second, from Professor Boyd Dawkins, draws especial attention to the statement that it will be possible to keep together "the Museum handed over by the India Office to the custody of the Board of Education."

Sir Caspar Purdon Clarke says that "each of the great art craft sections as a separate entity . . . will soon become a centre of reference, to which all wanting help or guidance in the several crafts will naturally apply." This, taken with Professor Boyd Dawkins's observations, might be read as suggesting that, although keeping together is possible, breaking up is contemplated.

In the minds of those interested in the crafts, it is not only the breaking up of the Indian Collections which would cause deep regret: to them that would be but one feature of a general catastrophe. To those who view the matter chiefly from the standpoint indicated by Professor Boyd Dawkins it would possibly be the chief feature. But all dealing with the arts of design to-day, and more especially architects, need, together with a grasp of the principles that underlie all those arts alike, a knowledge of the growth of the various forms in which these arts have manifested themselves—a knowledge which is less likely to be intelligently attained if our means of studying from the historical point of view are reduced.

In the great periods of the past, each of the art crafts was ruled by fairly well defined traditions handed down from master to apprentice as part of the "mystery" of the trade, so that there was a continuous stream, which, while it maintained always unbroken its connection with its sources, clearly reflected the changing customs and conditions of the lands through which it passed. Such conditions afforded natural protection against ignorant "originality," leading the men grouped in any given locality to work upon lines having at all events some family likeness, and so checked the sudden eccentric variations from normal types which in the less settled circumstances of to-day are so often noticeable. The different surroundings of the diverging branches naturally produced greatly varying effects upon the crafts they influenced, with the result that we of course find, in places widely separated, expressions of the same art (often of equal merit)

which, when placed together, produce anything but a sense of harmony in the mind of the observer.

To take an everyday example of such variation, the effect of placing together European and Oriental carpets may be instanced. As a rule, the thing is artistically impossible. And so, to a very large extent, it is with other classes of work.

All this seems so obvious that one feels hesitation in saying it, but it has much to do with the plea of those users of the Museums who ask that the Oriental Collections may remain grouped together. The craftsman of to-day has no workshop traditions to speak of. His craft teaching is often rather perfunctory and generally severed from artistic considerations. If he is to succeed at all upon the artistic side he must obtain knowledge of the principles of design by carefully studying in the schools or elsewhere and by examining the works of his predecessors in the Museums. The necessary mastery of principles will not be made easier to the learner by placing before him in one great group the efforts of the whole world in his particular craft. For various reasons, chiefly of climate and religion, the East and the West have so widely diverged in forms of artistic expression that the tyro may well be excused for thinking (with certain authors of a generation since) that different principles underlie them. By any arrangement combining Eastern and Western products in one group, differences may be emphasised, but the essential unity of the arts of each country at any given period can hardly be brought home to the mind: whereas, by keeping the Eastern objects grouped geographically and subdivided, practically, as is now done in the Indian Museum, the great drawback indicated is got over and the collections will remain as readily available for study in historical connection with their natural surroundings as for inspection by the technical student and artist.

The grouping of all Western objects into "craft sections" is of course not open to the objections above raised: no such great variations exist between any two groups of Western work as are seen between those of Orient and Occident.

It is not too late to modify the details of any proposed scheme. Would it be possible for the Institute Council to submit to the authorities at South Kensington a suggestion in the matter?—

Yours faithfully,

MATT. GARBUTT [F.]
SYDNEY PERKS, F.S.A. [F.]
WALTER TAPPER [A.]

Mr. Phénè Spiers, F.S.A., to whom an advance proof of the above was sent, writes:—

"I am quite in accord with the views expressed in Mr. Garbutt's letter, and should also be inclined to recommend that, in order to enhance and give more value to the Oriental Collection in their separate grouping at South Kensington, the Indian sculptures now in the British Museum should be returned there. To the student passing

from the Greek sculptures on the ground floor to the galleries containing the Greek terra-cottas and vases, they present a most incongruous effect, and are entirely out of harmony with the British Museum itself and all its collections."

Extracts from the letters in *The Times* referred to above are appended:—

12th February.

SIR.—Returning to Sir Caspar Purdon Clarke's letter in *The Times* of this morning, and to the previous letters in *The Times* on the subject of "The Reorganisation at South Kensington," to which Sir Caspar refers, I may, with your indulgence, now say that I also have from the first appearance of this correspondence been appealed to repeatedly to support the opponents of the proposed reorganisation of the collections of Indian artistic objects at South Kensington or their transfer to the Victoria and Albert Museum building; and that I have hitherto remained from taking any public part in the controversy, not only because I wholly approve of the proposed reorganisation, as I understand it, but because (1) I had fought out this right years ago when the collection of Indian artistic objects was transferred from the charge of the India Office to that of the Science and Art Department; (2) and I did not desire to express openly my inability to side with the agitators against the new proposals, who for the most part are personal friends of mine, and to some of whom I am under the deepest personal obligations; and (3), finally, because I always seek to avoid unfruitful discussion on any question of the arts, which in India, at least, are universally sacramental, having no significance and no reality of being apart from religion—from a temple to a tooth-pick—and which in their various manifestations, from the simplest to the most imaginative and deviceful, are for all men of artistic sensibility and sense a source of perennial pleasure and of unfailing consolation in time of trouble and distress, and a sure and stable succour and support of that bright serenity of soul that carries a man secretly past every misfortune and mishap that may befall him. But, Sir Caspar Purdon Clarke having given his support to these proposals, I feel that I must not leave him to stand alone against the maledictions to which he will be exposed, and as a very renegade on the question

The so-called "Oriental Collections" (as miscellaneous as the deltal spoil of Platea, or of the "loot" of Ecbatana by Alexander and Jerusalem by Titus, originally brought together through a century at the old "India House" in Leadenhall Street and afterwards temporarily shown at Fife House, and later in the new "India Office" in Westminster, were really broken up when the antiquities belonging to them were presented to the British Museum; the geological and mineralogical specimens to the Jernyn Street Museum; the economical vegetable products to the Kew Museum; and the artistic objects to the South Kensington Museum—a well-considered, wise, and decisive distribution which not only effected an acceptable economy, but immeasurably enhanced the value of the collections alike in the interests of India and the United Kingdom. Already the integrity of the "India House" artistic collections had been impaired by the cutting up of their illustrations of the glorious textile manufactures (not machinations as of Manchester) of India, and scattering them as "trade samples" to the British manufacturers (*i.e.* machinationers) of carpets and silks and cotton stuffs,

an act of unthinkable vandalism—but that it was committed! But this loss was made good in some measure by Sir Caspar Purdon Clarke, who was sent out to India expressly to make fresh purchases of carpets and silks and other fabrics of the sort; while the collections he at the same time made of utensils in copper and brass and other metals, and of folk-jewelry, pottery, and carvings in stone and wood, were of the very greatest interest and value, and more than made up for the injury done the so-called "Oriental Collections" at South Kensington by the destruction of the original Indian textiles when they were still the property of "the Secretary of State for India—in Council"! In this way, and by subsequent private donations, we have at last secured, under the management of the Museum officials at South Kensington, a most impressive and convincing presentation of the industrial arts of India unrivalled in any capital of Europe, or in India itself.

With such a triumphant result before us, however justified by the letter, there can be no justification in the spirit of the terms of the transfer of these collections from the India Office to South Kensington for any interference, from any quarter, with Mr. Cecil Smith's discretion in rearranging them in the Victoria and Albert Museum. At the same time I feel that we may all of us rest assured that—apart from the famous trifling of fanaticism—the views and opinions expressed on the subject in the columns of *The Times* by Mr. Vincent Robinson, C.I.E., Mr. Lindo Myers, Mr. J. D. Grace, and Professor Boyd Dawkins, F.R.S., will have due weight with the authorities both at the India Office and at the Victoria and Albert Museum.

GEORGE BIRDWOOD.

12th February.

SIR.—The letter in your columns of 11th February from Sir C. Purdon Clarke, late Art Director of the Victoria and Albert Museum, in favour of the scheme or the Board of Education, raises a false issue in the controversy as to the break up of the Indian Museum. The question as to whether the scheme is right or wrong has not been yet considered in the discussion in the Press. So far from the scheme having been condemned, it has several times been pointed out that it offers ample room (Board of Education "Cd. 4389") for the preservation, in its entirety, of the Museum handed over by the India Office to the custody of the Board of Education. It will go into Section C, specially devised in the scheme for collections that must be kept together.

It is not the scheme of arrangement which is at issue, but the proposed destruction of the India Museum, so valuable to the nation at large as an historical monument of the conquest of India, and in particular to the students of anthropology and to the young Englishmen who are preparing in London to take their share of the burden of Empire. It is this proposed destruction, unnecessary under the scheme, that has caused so strong and widespread an opposition on the part of leading men of the time, including Lords Curzon, Roberts, and Ampthill, and representatives of science, art, and culture in London, Oxford, Cambridge, and elsewhere.

With regard to this proposed destruction, Sir C. Purdon Clarke's silence is significant. As he compares himself to the prophet who went forth with Balaam and the ass, he might reasonably have been expected to speak on the only point which is relevant to the controversy.—I am, Sir, yours &c.,

W. BOYD DAWKINS.

MINUTES. IX.

At a Special General Meeting held Monday, 1st March 1909, at 8 p.m.—Present: Mr. Ernest George, *President*, in the Chair: 12 Fellows (including 6 members of the Council), and 14 Associates:

The President announced that the Meeting was convened, pursuant to By-law 64, to elect the Royal Gold Medalist for the current year, and having moved in accordance with notice that Dr. Arthur John Evans, F.R.S., be elected for the honour, it was unanimously

Resolved, that subject to His Majesty's gracious sanction the Royal Gold Medal for the promotion of Architecture be awarded this year to Dr. Arthur John Evans, F.R.S.

The Special Meeting then terminated.

At the Ninth General Meeting of the Session 1908-09 held Monday, 1st March 1909, at the conclusion of the Special General Meeting above referred to, and similarly constituted, the Minutes of the Meeting held 15th February p. 292 were taken as read and signed as correct.

The Hon. Secretary having announced the decease of Cole Alfred Adams, *Fellow*, a member of the Board of Examiners and former member of the Council, it was resolved that an expression of regret be entered on the Minutes of the Meeting, and that a message of sympathy and condolence be communicated on behalf of the Institute to the widow and children.

The Hon. Secretary having formally acknowledged the receipt of books presented to the Library, a vote of thanks to the donors was passed by acclamation.

The following candidates for membership were elected by show of hands under By-law 9:—

AS FELLOWS (3).

DINWIDDY: TOM NORMAN [A. 1901].
HOWELL: WILLIAM ROLAND [A. 1891] (Reading).
WILLOCK: RICHARD [A. 1889].

AS ASSOCIATES (44).

ALLNER: JAMES [Probationer 1902, Student 1905] (Dorset).
ASH: HORACE JAMES, P.A.S.I. [Probationer 1893, Student 1902] (Nuneaton).
BESWICK: ALFRED EDWARD [Probationer 1903, Student 1904] (Swindon).
BOWASS: JAMES EVERETT [Probationer 1904, Student 1906] (Widmermere).
BUCKINGHAM: ERNEST HUGH [Special Examination] (Norwich).
BUSH: FREDERICK THWAITES [Probationer 1904, Student 1906].
COLDWELL: EDWARD SMITH [Probationer 1904, Student 1907].
DAFT: WILLIAM AUSTIN [Probationer 1903, Student 1906] (Oxford).
DALTON: PERCY [Probationer 1903, Student 1904] (Southport).
DAVIES: HORACE FRANCIS, F.S.I. [Special Examination] (Chester).
DEAN: WILLIAM [Probationer 1905, Student 1907].
DENMAN: JOHN LEOPOLD [Probationer 1904, Student 1907] (Brighton).
FOSTER: REGINALD CHARLES [Probationer 1900, Student 1904].
FRENCH: HAROLD [Probationer 1903, Student 1904].
GRAHAM: ALLAN [Special Examination].
GROVES: CHRISTOPHER [Probationer 1900, Student 1905] (Newcastle-on-Tyne).
HEALEY: HUGH [Probationer 1900, Student 1905] (Rochdale).
HILL: THOMAS HAROLD [Probationer 1899, Student 1905] (Manchester).

HOSKING: THOMAS STANLEY [Probationer 1904, Student 1906] (Llandindod Wells).
HUNTER: GEORGE EDWARD [Probationer 1905, Student 1906] (Gosforth).
IXER: SYDNEY HENRY HOWARD [Probationer 1902, Student 1906].
LAY: HARRY GEORGE [Probationer 1902, Student 1904] (Wellingborough).
MAJOR: WILLIAM PAUL [Probationer 1899, Student 1905] (Bristol).
MOBBS: SYDNEY WILFRID [Probationer 1901, Student 1905] (Lowestoft).
MOLL: CHARLES JOHNS [Probationer 1904, Student 1906] (Plymouth).
MORLEY: ERIC [Probationer 1901, Student 1905] (Bradford).
NEAVE: STACEY ARTHUR [Probationer 1904, Student 1906] (Sydney, N.S.W.).
PENFOLD: JOHN THOMAS [Probationer 1903, Student 1904].
POTTER: FRANCIS JOHN [Probationer 1890, Student 1891].
RUDDLE: ALAN WILFRID [Probationer 1894, Student 1896, Special Examination] (Peterborough).
SMITH: CHARLES BENJAMIN [Probationer 1902, Student 1904] (Ipswich).
SURMAN: JOHN BURGESS [Probationer 1902, Student 1904] (Birmingham).
SUTCLIFFE: WILLIAM [Probationer 1902, Student 1904] (Todmorden).
SUTTON: BASIL HORT [Probationer 1902, Student 1904] (Reading).
SYKES: FRANK [Probationer 1900, Student 1901] (Manchester).
THOMASSON: WILLIAM JOSEPH MATE [Probationer 1899, Student 1905] (Bournemouth).
TYNDALL: RICHARD JOHN [Probationer 1898, Student 1904].
VANES: ROBERT NEWTON [Probationer 1907, Student 1907].
VAUGHAN: JAMES HENRY [Probationer 1900, Student 1905] (Newport, Mon.).
WARD: FRANK DORRINGTON [Probationer 1904, Student 1905] (Hastings).
WARREN: HENRY GEORGE [Probationer 1905, Student 1907].
WHITTAKER: THOMAS HERBERT [Probationer 1903, Student 1906] (Nottingham).
WILSON: WILLIAM HARDY [Probationer 1904, Student 1906] (Sydney, N.S.W.).
WOOD: ERNEST MARSHALL [Probationer 1902, Student 1905] (Cardiff).

AS HON. CORRESPONDING MEMBERS (2).

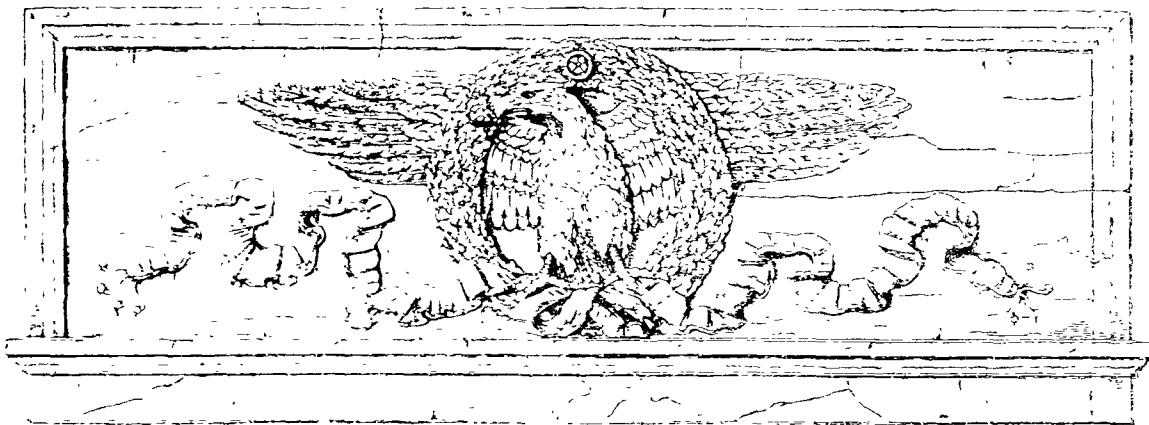
DELPY: ADRIEN (Brussels).
GIRAULT: CHARLES LOUIS (Paris).

Mr. K. Gammell, A., in accordance with notice, asked: "Whether in view of the letter signed by Jos. Routledge on behalf of the Stanley Urban District Council, Durham, appearing in the *Builder's Journal* for 10th February, any steps have been taken by the Council other than by publication of the notice in No. 7 of the *Journal* to induce the members referred to to observe the *esprit de corps* reasonably to be looked for from the members of this Institute, and, if not, whether steps will be taken to exercise a deterrent influence on members who enter competitions which are considered objectionable by the Council of this Institute."

The President replied that the Council had discussed the matter, but considered they were not at liberty to penalise members; they could only trust to their right feeling.

Mr. Leonard Stokes, *Vice-President*, stated that the matter was engaging the attention of the By-laws Committee.

The proceedings terminated at 8.30 p.m.



AMERICAN ARCHITECTURE: WITH ESPECIAL REFERENCE TO WORK AT WASHINGTON.

By FRANCIS S. SWALES.

Read before the Royal Institute of British Architects, Monday, 15th March 1909.

WHEN I was asked to give a Paper upon American architecture before this Institute I recognised that I owed this compliment to the fact that I was known to members of your Council as having lived for so many years in America that my point of view might be expected to be that of the American, and that in limiting the subject in order to make it possible to be dealt with in the hour placed at my disposal I might naturally confine my Paper to some subject in which I should believe American architects themselves to be especially interested. I knew, too, that it is characteristic of British generosity to expect to have to take into account the natural shortcomings of the foreign point of view, and to be rather indulgent with it—I think the foreigner rather expects the indulgence—and I ventured to think I might interest you in a brief study of architecture as it was, as it has been, as it is, and as it will be in the United States, having especial reference to work at the national capital—Washington, in the district of Columbia.

To assist in a better comprehension of how the capital city came to be located as it is, how a new city came to be founded, and more particularly how to account for the making of a great city plan which in its conception was wholly foreign to English traditions, in a country that was made out of a number of English colonies, leads first to the consideration of certain indispensable facts taking place antecedent to the founding of that city.

As to the high general character of the architecture of the early period of the Republic's existence, its subsequent decline, its more recent remarkable ascendancy, and its present lofty standards, all have their explanations and justifications and causes, and have arisen out of the certain special conditions of political circumstances connected with the nation's formation and growth, and the inevitable influences of geographical position and climate.

Architecture is said to be the mirror of a people's needs, aspirations, and enlightenment: and surely nowhere could the truth of this statement be more completely verified than by a comparison of the written history of Washington with its architecture, and I think this will be sufficiently demonstrated not only by reference to the individual monuments, but equally, if not more especially, by referring to the plan of the city itself.

The British possessions which seceded from England and came under the Federal Government constituted about one-third of the area of the present United States, and lay along the Atlantic seaboard. Quebec to the North and the Louisiana territory to the West were, one a former colony and the other still a colony of France, and Florida to the South was the property of Spain. During the War of Independence the French colonists lent their moral and material support to the American revolutionists, and France herself became their ally, and her subjects contributed much of the military skill and engineering that came to the assistance of Washington. Among these, one of the first to tender his services was Major Pierre Charles L'Enfant, who soon distinguished himself for conspicuous ability as a military engineer.

When peace and independence became established, the first thing to be considered was a form of government. When the Federal form had been adopted, and General Washington was made President and Thomas Jefferson—the author of the Declaration of Independence—the first Secretary of State, one of the first things to be discussed was the proposition to establish a “Federal town, a Federal house for Congress and for the executive officers.” The discussion as to where it should be located was long and heated, and strong sectional feeling became apparent. Philadelphia, New York, Baltimore, and other large towns urged their claims to be made the seat of the National Government. Maryland and Virginia offered the present territory on the Potomac on the 38° north latitude. Balloting gave no results; but, finally, an Act was passed conferring upon President Washington the sole power to select a Federal territory “not exceeding ten miles square on the river Potomac . . . for the permanent seat of the Government of the United States.”

The final adoption of the Potomac site was brought about by an interesting stroke of diplomacy. The Potomac site was ardently favoured by the representatives of the Southern States and also by the President, but was bitterly opposed by those of the Northern States. It happened at this time that Congress had just defeated, after an obstinate struggle, a measure proposed by Alexander Hamilton known as the Funding Bill. The Funding Bill provided for the assumption by the Federal Government of the war debt of the States. The debts amounted to some four millions of pounds sterling. Hamilton, who was earnestly seeking to have this important Bill reconsidered, appealed to the Secretary of State for aid, as he believed that the Northern States, which were the creditor States, would secede from the Union if their claims were not paid. Jefferson, to quote his own words, recorded by himself in his *Annals*, “thought it impossible that reasonable men consulting together coolly could fail, by some mutual sacrifices of opinion, to form a compromise to save the Union.” The “compromise” turned out to be an arrangement that the “rejection should be rescinded, to effect which some members should change their votes. But it was observed that this pill would be peculiarly bitter to the Southern States, and that some concomitant measure should be adopted to sweeten it a little to them. There had been before propositions to fix the seat of Government either at Philadelphia or at Georgetown on the Potomac, and it was thought that by giving it to Philadelphia for ten years and to Georgetown permanently afterwards this might act as an anodyne, and calm in some measure the excitement which might be caused by the other measure alone. So two of the Potomac members agreed to change their votes, and Hamilton undertook to carry the other point. In doing this the influence he had established over the Eastern members effected his side of the engagement, and so the Assumption was passed.” This record is important, for it shows that it was Jefferson who contrived to place in the hands of the President the selection of the site and control of the plan of the capital city.

Jefferson, upon whom devolved the difficult task of arranging the diplomatic relations of the United States with foreign nations, like many another gentleman of his day, had

many callings, and seems to have been a planter, to have practised law without much pecuniary success, to have studied astronomy, gathered about him a library of great intrinsic value—in fact the nucleus of the collection in the Congressional Library—and, what is most important to his connection with the establishing of the national capital, he was by inclination and aptitude one of us—he was an architect : and after he retired from office at the expiration of his term as President of the United States, to which he was subsequently elected, he designed, among other things, the fine group of buildings for the University of Virginia and his own house, Monticello. He knew it was Washington's desire that the capital should be located near his (Washington's) home in Virginia, and he stipulated for that in his "compromise" with Hamilton : but I think it was due to his technical knowledge of building that he realised that Washington's experience as an engineer and surveyor rendered him the fittest person to deal with the selection of professional advice and assistance in the laying out of the town and determining of the sites for the most important buildings.

The Act of July 1790, which gave the President the power to select the site for the future seat of Government, authorised him to have it surveyed and planned, and to proceed with the construction of certain works and buildings. He therefore appointed three Commissioners to supervise the work and stand the criticism of the public—Major Ellicott to survey the territory, and Major L'Enfant to plan the city. To the last-mentioned he indicated that he thought the Federal House should be located in the centre of the town, and that the Executive mansion and offices should be kept well away from the Federal House "to prevent members of Congress from too frequently visiting the Executive departments." To Jefferson he delegated everything and kept him informed of his personal wishes—possibly he had conveyed the desire "to prevent members of Congress" from interfering with the building of Washington, and that idea may have been uppermost in Jefferson's mind when in the "compromise" made with Hamilton he magnanimously proposed that Philadelphia should be the capital for the "first ten years." The versatile Secretary of State visited Europe arranging diplomatic relations and collecting books, plans of buildings, and maps of cities. The last he supplied to Major L'Enfant, and it may be—I think it probable, in view of the maps selected—namely, Paris, Orleans, Turin, Milan, Strasbourg, Carlsruhe, and Frankfort, and the fact that L'Enfant was an accomplished military engineer—that it was at L'Enfant's request that the maps were obtained, and he, L'Enfant, was probably familiar with them and knew something of their best features. It is probable, also, that he knew of the various works of Le Notre. However this may be, he evolved from his study of them a plan for the city of Washington that was at once original, practical, and beautiful, and to which the city will ultimately conform.

This plan [fig. 1] provided for a central site for the "Capitol"—which was L'Enfant's designation of the Federal house—on the plateau at the intersection of two main avenues running north and south and east and west, designated as North, South, East and West Capitol Streets. The Capitol was located in a large park from which radiated twelve wide avenues, including the four known as Capitol Streets, and two of each of the others (those extending in opposite directions) were named after the States of Pennsylvania, Maryland, New Jersey, and Delaware. Other streets were then laid out parallel with the Capitol Streets, those extending north and south being designated by numbers, and those east and west by the letters of the alphabet. The President's house was located, facing north and south, in a park at the intersection of Pennsylvania Avenue and West Sixteenth Street. At the intersection of the principal axes of the Capitol and of the President's house it was proposed by L'Enfant to place the equestrian statue of Washington voted by the Continental Congress of 1783 : and from this point to the Capitol to develop the West Capitol Street into a magnificent avenue four hundred feet wide and a mile in length, along each side of which, and situated each in the centre of its own

grounds, were to be erected the "Grands Edifices." A "National Church," or kind of Pantheon for the reception of statues of heroes whom Congress might honour, was considered and mentioned in notes on early maps. The engraved map of 1792 shows sites for buildings, monuments, and statuary, all arranged so as to present focal points along the principal streets, and, as L'Enfant says, "to preserve through the whole a reciprocity of sight" between the

important points. Such was the plan approved by Washington and Jefferson and adopted by Congress in 1791, and which L'Enfant was entrusted to carry out.

L'Enfant's plans were, during his lifetime, carried out only so far as securing sites for the principal Government buildings, cutting down trees, and making a few of the principal roads. All available land was bought up by speculators, who held it at high prices and thus retarded the growth of the city.

The personal interest which we know Washington and Jefferson took in the planning of the city and in the selection of sites for the important public buildings extended also to the selection of designs for the buildings, and, with Jefferson, even to the choice of painters and sculptors to execute monuments.

The three Commis-

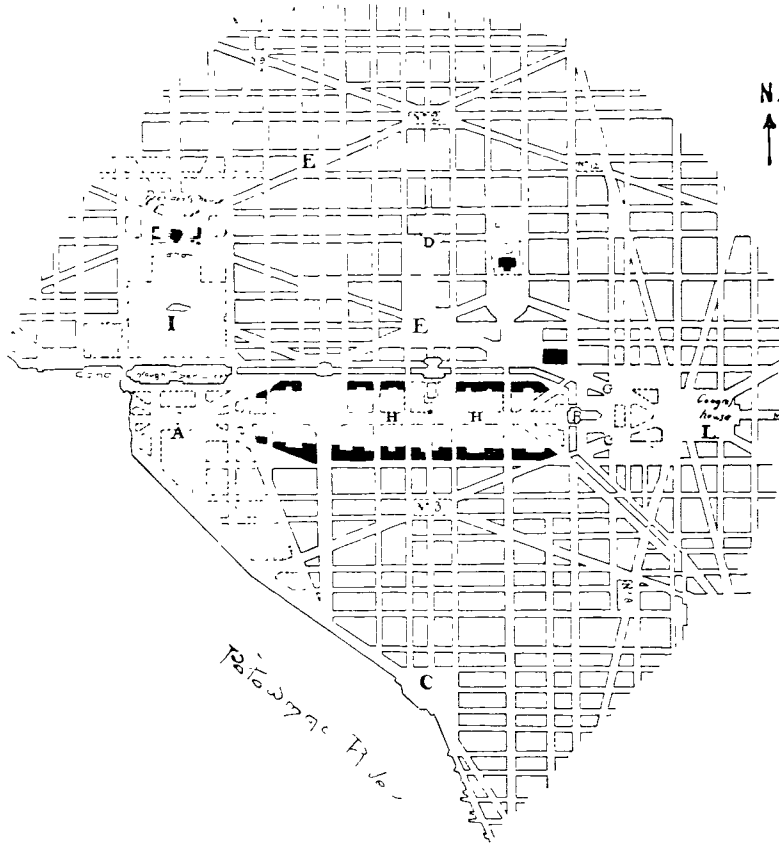


FIG. 1.—SECTION OF L'ENFANT'S PLAN (1791) SHOWING SITES SELECTED FOR IMPORTANT FEDERAL BUILDINGS.

A, Egyptian statue of George Washington, erected in 1785 over the Capitol; B, Congress; C, Grand Avenue; D, Public walk and carriage way to the Capitol; E, Grand Avenue; F, 300 feet wide, 1 mile long (West Capitol Street); G, President's Park; H, Casco.

sioners referred to above who were appointed to look after the laying out of the capital city were directed to "procure suitable buildings for the accommodation of Congress and of the President, and for the public offices of the Government of the United States"; and, soon after the approval of L'Enfant's plan, they took up this important part of the work. In the year 1792 a competition was held to procure a design for the Capitol, and sixteen designs were submitted, but out of the lot none was regarded as being fit for serious consideration, and all were returned by Jefferson to their authors. Shortly afterwards a French architect, Stephen Hallet, of New York, presented a design to the Commissioners which met with general approval, and he was asked to journey to Washington to examine the site and perfect his design. About the same time Dr. Wm. Thornton, a Philadelphia physician and amateur architect, who had studied in Paris, presented an elaborate coloured design to President Washington, who was so impressed that he asked the Commissioners to adopt

Thornton's design in place of Hallet's. Hallet declared that Thornton had stolen some of his rough sketches and merely elaborated upon them. This charge Thornton vigorously denied, and the premium originally offered for a design was awarded to him. Thornton was not, however, considered to be competent to carry out the work, and Hallet was made supervising architect with a salary of £400 a year, and the work commenced after Hallet had shown that Thornton's plan was impracticable and had revised Thornton's design. Thornton got himself appointed as one of the Commissioners, and a bitter quarrel ensued between the doctor and the architect. The Commissioners—no doubt at Thornton's instigation—requested Hallet to turn over all his drawings to them, which he flatly refused to do—and I think we all sympathise with his stand! He was therefore dismissed. George Hadfield, an Englishman, succeeded Hallet, but he too was badly treated by the Commission and was forced to resign.

A competition was also held for the President's house, and this was won and carried through by James Hoban, an Irishman, who had been a clerk of works under Hallet. The President's house is an unpretentious though large and rather monumental residence, belonging to the early type of the Classic Revival in England.

Leaving Washington for a moment, there is another public building which owes its American character—a character too much influenced by French design to be English, yet too English to be entirely won over to wholly French design—to the fact that, like the Capitol, it is the work of both French and English—or Irish—architects: the New York City Hall, built between the years 1803 and 1812, from designs by Mangin and McComb.

In 1803 Jefferson, who was then President, accomplished the very important purchase by the United States from France of the Louisiana Territory, adding many thousand square miles of fine land and a considerable number of French people to the national population.

To return now to the Capitol, after the dismissal of Hadfield, Hoban, the architect of the President's house, was next called in to continue the work. He completed the north wing of the Hallet-Thornton design, which is now part of the central block, in the year 1800. Three years later Benjamin Latrobe—a pupil of Cockerell—an Englishman who had cultivated the acquaintance of President Washington, was appointed to construct the south wing and reconstruct the work upon the north wing which had been poorly executed under Hoban. He did both in accordance with his own plans, which did not differ materially from those of Hallet, Thornton, and Hadfield. He completed both wings in 1811, and built a kind of gantry between them.

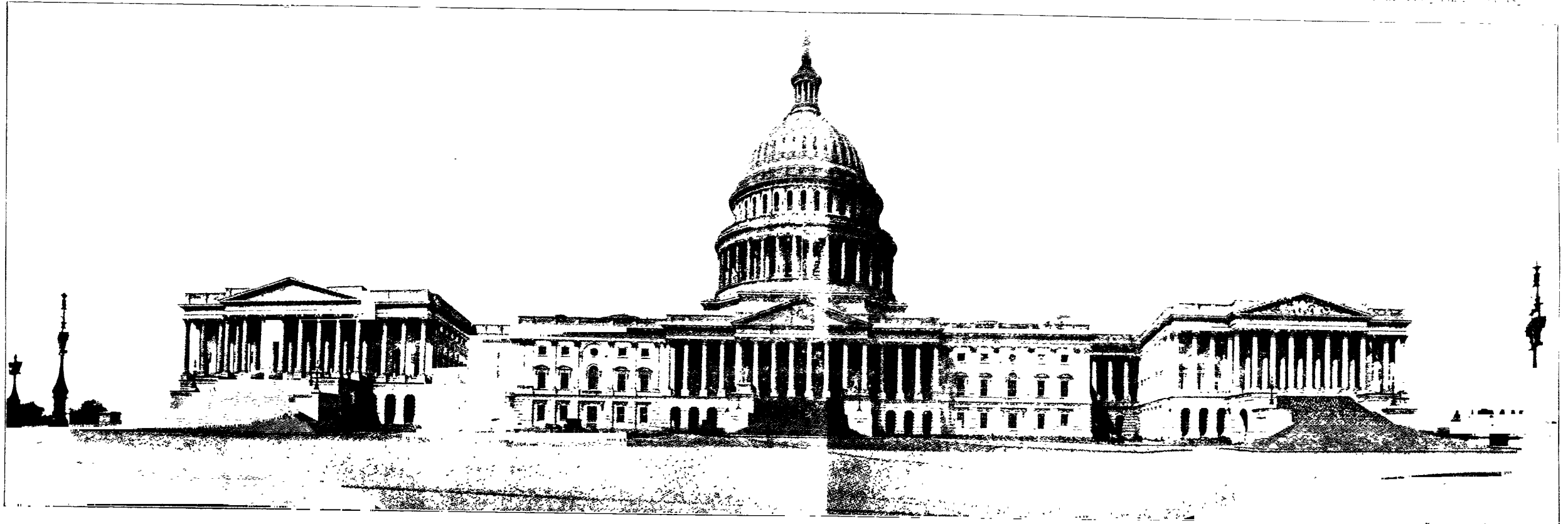
The following year the United States declared war against England, and in August of 1814 the British troops took the city of Washington and burned the Capitol, the President's house, and other public buildings, besides much private property. The walls of the Capitol and of the President's house withstood the flames. Latrobe, who was at the time in Pittsburg, was summoned by President Madison to return to Washington, and he proceeded with the restoration of the Capitol. To him is due the credit of designing the former House of Representatives—now known as Statuary Hall—and the old Senate Chamber, used at present by the Supreme Court of the United States, and the old lobbies. He designed a low dome and the central portion of the east front, consisting of the colonnade and the pediment. He resigned in 1817, and was succeeded by Charles Bulfinch, of Boston, who was the first American-born architect employed on the Capitol. Bulfinch designed the hall of the old Library of Congress, which formed the projecting central feature of the west front, modified Latrobe's design for the dome, and designed the west front very much like the front of the Boston State House, of which he was also architect, and in 1827 reported that the Capitol was finished. The building completed by Bulfinch was, with the exception of the dome, what to-day constitutes the central block. It is 352 feet long by 121 feet

deep, 70 feet high to the top of the balustrade, and to the top of the dome measures 145 feet.

Latrobe's work was that of an architect of some—but by no means complete—training, and he introduced numerous trifling details and degenerate forms into his work on the Capitol, as, for instance, the segmental ceiling over the old House of Representatives. He and Jefferson, who was then living in retirement and practising architecture, had much to do with the development of the so-called Classic Revival in America—the introduction of the use of Greek and Roman temples for buildings for all purposes. Presidents Madison and Monroe recognised that the earlier Presidents had spared neither time nor thought upon the study of the Capitol, and were opposed to any changes which would not be simply the logical development and extension of the original design. Latrobe and Bulfinch were both tied by restrictions in this respect. The construction of the Rotunda and Library indicate the growth of the wealth of the nation at that time; and the building of large groups of new colleges—the University of Virginia, Washington and Lee University, and Girard College, prove that the desire for higher education had taken hold upon the people during this period of prosperity. (There already existed several colleges and universities of note, including William and Mary, Harvard and Yale.) When Bulfinch handed in his report that the Capitol was finished he retired to Boston, and Robert Mills, designer of the old Pennsylvania State Capitol, succeeded him as a sort of resident architect or clerk of works, but for twenty years nothing further was done to the Capitol.

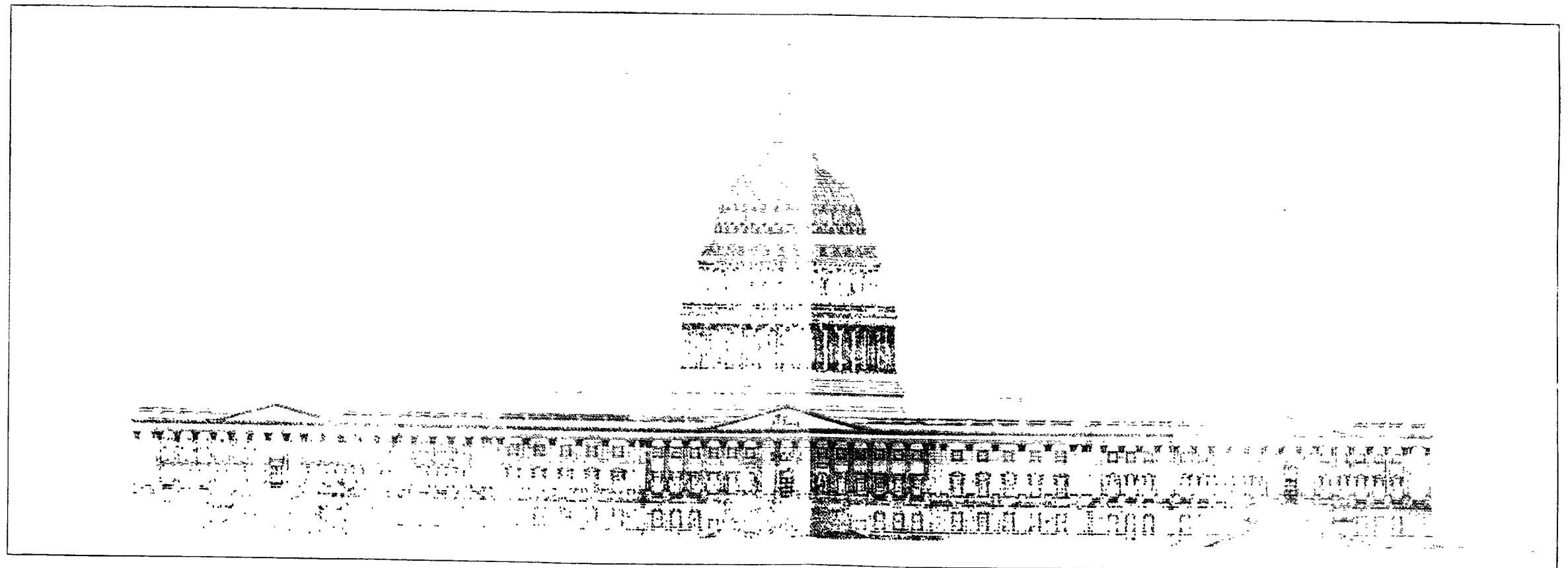
Immigration went on rapidly, the population of the country doubling and quadrupling during this time. The class of immigrants being principally farmers, mechanics, traders, and soldiers of fortune—strong, vigorous, and determined men, rather than subtle, refined, or politic. The suffrage was too easily obtained, and the votes of this horde of Europeans began to tell upon the class of men who attained the Presidency. The growth of material interests is evidenced by the building of the Treasury Department in Washington, the Customs House at Boston, the old National City Bank in New York, and similar structures at Philadelphia, Providence, Richmond, Rochester, Pittsburg, New Orleans, St. Louis, and other large towns.

In 1833 the old building of the Treasury was destroyed by fire. Mills was appointed to design a new one. It was intended to locate this department in what is now called the Mall—the park which in L'Enfant's scheme was to be traversed by West Capitol Street and made into a grand avenue—but Mills took so long deciding upon the site that President Jackson, a soldier by profession, lost patience with him, and, it is said, meeting the architect just outside the President's house one morning he planted his cane at the spot where he was standing, and said, "Here, right here, is where I want the corner-stone laid." And there it was laid. The building as erected breaks Pennsylvania Avenue and obstructs the view from the President's house to the Capitol. The adoption of this site was a serious blunder, and a frightful blot on L'Enfant's plan. The original portion was big, costly, and commonplace. To Jackson we must attribute the beginning of the appointment of Army engineers to construct Government buildings. Perhaps he felt that as Washington and Jefferson had appointed engineers and architects—men of their own professions—he should follow their precedent by appointing others from his. On the other hand his action was partially justified by the dearth of good architects. The commercial undertakings everywhere called loudly for the help of all the brains in the country: there were doubtless plenty of opportunities for architects who could have shown themselves competent to grapple with the problems of the times, but if a design for a church was required a Greek Ionic temple was presented, if a railway station a Greek Doric temple was considered the thing—by the so



UNITED STATES CAPITAL, WASHINGTON

1858-59, D. B. Deane, P. & J. H. R. Co.



PROPOSED EXTENSION OF THE EAST FRONT, U.S. CAPITOL, RECOMMENDED BY THOMAS H. WALTER IN 1865, WITH MODIFICATION SUGGESTED IN 1904 BY MESSRS. CARRERE AND HASTINGS, CONSULTING ARCHITECTS

denominated architects—and not only the President, but the railway companies and business firms placed their buildings in the hands of men who, if they knew little of engineering, had at least the advantage of knowing nothing about the works of Stuart and Revett or “Greek” Thomson.

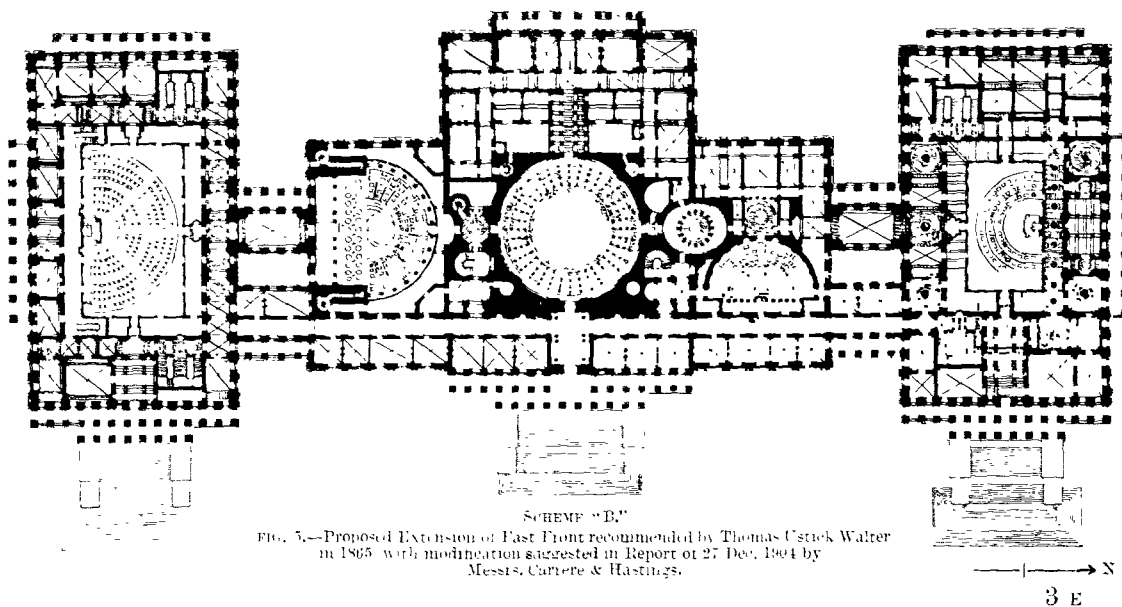
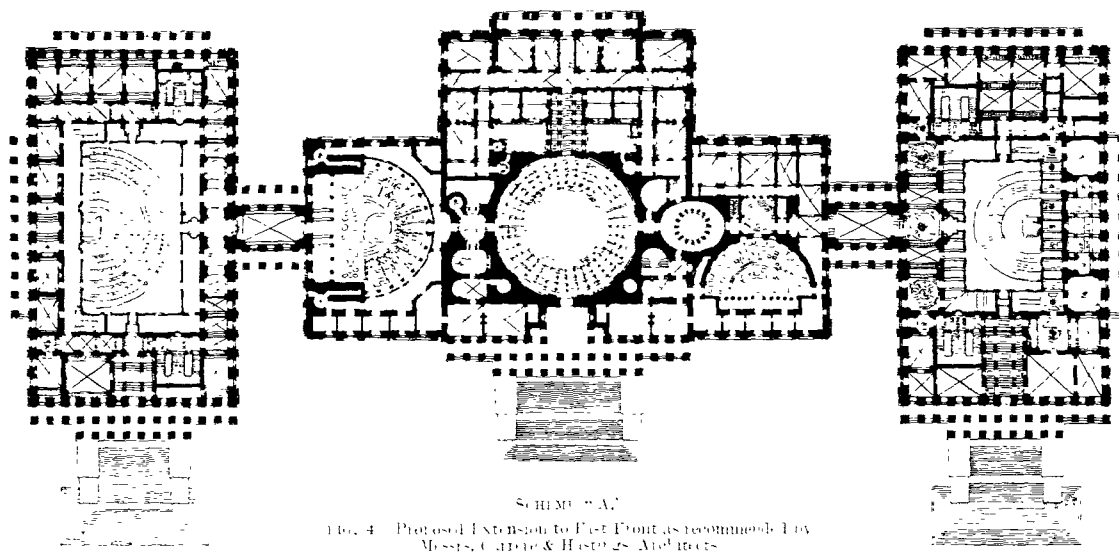
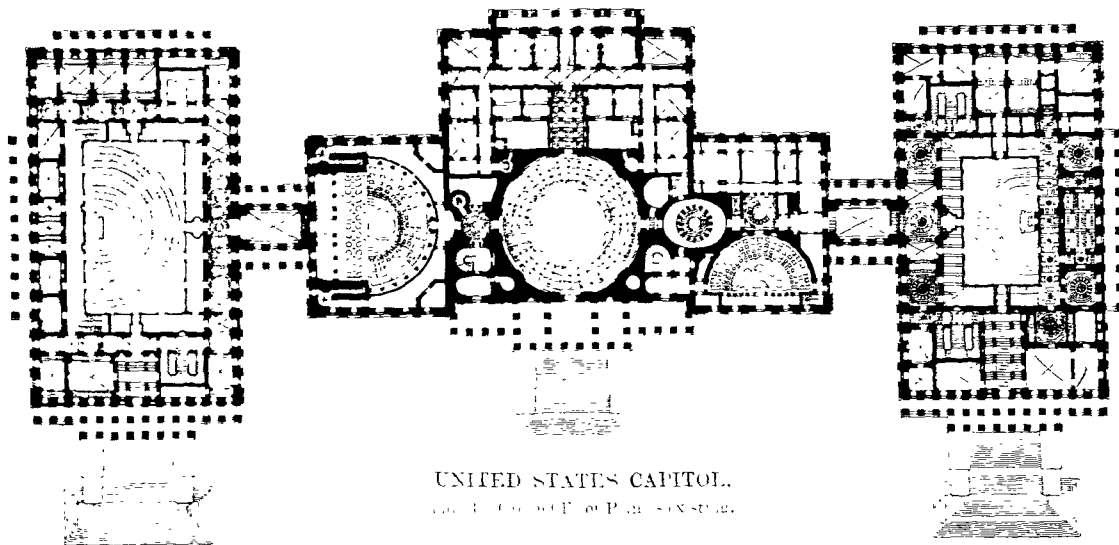
In 1850, when the enormous increase in population, and consequent increase in representation in Congress, made important extensions to the Capitol necessary, Thomas U. Walter, of Philadelphia, was practically the only architect left who could be entrusted with this great task. Walter was a Classicist, but used the orders with intelligence, refinement, and effect. He was also an able, practical planner, and withal an artist competent to compose both as to plan and perspective. Between the year 1850 and towards the end of the Civil War he planned and carried out the extensions and dome of the Capitol as it exists at present [fig. 2]. He treated the scheme boldly and simply, leaving the plan of the centre block as he found it, and adding two great wings, making a three-part composition. The longer axis of the old building runs north and south: the axis of Walter’s two wings were made to run east and west, and the resulting masses in pleasing contrast to that of the old central structure.

Walter began his design and carried it through to completion during the saddest period of American history—at the time when bitter controversy had arisen between the States of the North and South over the question of the extension of the slave-holding territory. Angry debate, and even assault and battery, became of common occurrence in Congress. Let us digress for a moment to recall that when Jefferson and Hamilton made their little “compromise” the latter expressed his fears that the Eastern Northern States might secede from the Union if their claims were not paid. Their right to do so was not, apparently, questioned, and when the deadlock came over the question of slavery the Southern States naturally assumed the same right. Good Americans on both sides desired the preservation of the Union, and believed it would not be destroyed but rather strengthened by the struggle which was at hand: the importation of slaves had been forbidden many years previously, and the differences arose only as to whether slavery should be extended into the new States being formed out of the Louisiana territory, or confined to the States in which it existed. Aside from the question of finding a market for slaves, the Southern people doubtless wished to avoid the embarrassment that faces them to-day of being outnumbered in some localities by as many as five or six to one. On the other hand the immigrant mechanics and free labourers knew the impossibility of competing with slavery. The men who made the country’s welfare their life’s work—the economists and administrators—knew the rest. And we all know it too. The Constitution was amended—slavery ceased to exist.

Walter’s plan consists of three blocks [fig. 3]. The central one, which embodies the needs and aspirations of the formative period of the American nation: and two newer ones, a north wing and a south wing containing the two houses each linked to the old block—the old home of both houses. It is indubitably a practical arrangement, designed to afford the best lighting to the new wings and to shut out as little as possible from the old structure: but I like to think that it is something more than all that—that there is a beautiful symbolism about it, an artist’s ideal achieved: that from the beginning Walter saw the two houses—the Northern States and the Southern States—widely separated, housing two different representations of the people, yet each essential to the existence and continuance of the other: that he saw in the old building the expression of a half century of common effort and common accomplishment founded upon the old plan representing the Constitution of the United States: common ideals crowned by that ornament of achievement, Unity, represented by its dome. First he planned and constructed the two wings and linked each to the old building—the two great wings of white marble were seen to predominate, to assert their importance over

the old structure. He then proposed a larger dome—an emblem of a greater unity, a greater objective, one that would be powerful enough to draw the two into closer relations and harmony with each other—and to mount this emblem of a great Amendment upon the old base of the Constitution: and, finally, to bring the old structure up to the quality of the new, in appearance at least, he found it expedient to give the old sub-structure a coat of white paint: but he planned for the reconstruction of its front in the same enduring and beautiful materials of which the wings had been built. He saw weaknesses in the substructure that would not permit him to construct his dome of the same material as the wings, so he built it of cast-iron, and, like the Amendment, which I feel it represents—by which the slaves obtained their freedom *and the suffrage at the same time*—it overhangs its substructure and is unpleasant to behold from many points of view. But so Walter deemed it expedient to leave it, and so also Lincoln left the Amendment, to succeeding generations to modify or reconstruct as may be found necessary or desirable. How is the present generation doing its duty to that trust? And to whose hands has it been especially committed? When the American Institute of Architects was formed—patterned upon this Royal Institute—Thomas Ustick Walter was selected to be its first President. He was the last representative of American architecture as it was.

Architecture as it has been in the United States may be said to have begun with Richard Morris Hunt. When he returned to the United States in 1855 Hunt had been for ten years a student in the Ecole des Beaux-Arts in the atelier of Hector Lefuel, and had worked under Lefuel and Visconti upon the construction of the extensions of the Louvre carried out during the Second Empire. He is credited with the design of the Pavilion which faces the Rue de Rivoli, opposite the Palais Royal. Hunt was the son of a Congressman, and went directly into the office of Walter, working for him upon the Capitol for six months. He then returned to New York, where he found two or three architects endeavouring to resuscitate Gothic architecture by attempting to follow the so-called Gothic Revival—or should I say Gothic post-mortem?—in England. Upjohn had built Trinity Church with a great steeple, typifying Religion dominating New York—a stone exterior of pleasing design, fit to go with an old English village, and a vaulted interior—that is, “vaulted” in *plaster*. There were one or two other examples of the same sort of thing—a kind of old-world scenery, planted in little parks, amidst Greek temples serving as sub-treasury, hotel, and theatre. He set to work vigorously to change things. He started an atelier, in which he had as pupils Mr. George B. Post and Charles Gambrill, Professor Ware and Henry Van Brunt. All of these pupils turned to the brand-new “Gothic.” Ware and Van Brunt practised together in Boston; Gambrill and Post, for a time, in New York. Upon the return to the United States, in 1870, of Henry Hobson Richardson, who had studied for several years in Paris, the firm of Gambrill and Richardson was formed; and in this office the late Stanford White worked as a draughtsman before he, too, went to Paris to study. Hunt had endeavoured to work in the *néo-grec*, but seems to have found it an up-hill task, and, in spite of his best endeavours and his uncompromising contention against engineers designing architectural work, such buildings as the State War and Navy Department at Washington, the Capitol at Albany, and the Philadelphian City Hall went merrily on. Richardson returned after the war was over, and at the time that the country was being fairly inundated with Irish and Italian labourers, German mechanics, and fortune-seekers and adventurers from all parts of the world, the administrative ability which America inherited from England was taxed to its utmost to preserve order and provide elementary education. Generals in the victorious Grand Army of the Republic were elected to the Presidency from the end of Johnson’s term until the first victory of the late President Cleveland over Blaine and General Logan in 1884. Bitter



sectional feeling ran high. Bands of white men organised in the South to protect themselves against the semi-savage negroes who had been set free and given the vote; these bands became lawless terrorists. The Irish workmen and labourers in Pennsylvania adopted and pursued the same tactics against other workmen and their employers. Strikes, accompanied by extreme violence, occurred in nearly all the eastern cities of the middle west, especially near Pittsburg, Chicago, and Buffalo. Disputes between capital and labour were of constant occurrence, and frequently had to be put down by the State troops. Richardson almost immediately caught the rough, vigorous spirit of the times, and his Trinity Church at Boston, Court-house and Gaol at Pittsburg, and Chamber of Commerce at Cincinnati, attracted the attention of the public to the difference between the work of the architect and that of the engineers and builders.

Everybody wanted his building, whether a court-house or church, railway station or gate lodge, in "the Romanesque rock-faced style." An architect's client, who was wealthy but without taste, was described in the architect's office as being "rich and rock-faced." Richardson's work extended all over the country—even to Washington, where he built the residence of the late Secretary of State, then Colonel, John Hay. His design for the Cathedral at Albany was perhaps his greatest work, but the building was not erected from his design. He died in 1886, and his influence upon the architecture of the country terminated when, in 1888, in the competition for the huge Cathedral of St. John the Divine, a Renaissance design by Messrs. Carrere and Hastings was placed first by the assessor over a number of the most original, impressive, and imaginative works that had been produced in Richardson's style, including the design in course of erection by Messrs. Heins and La Farge, a huge *tour-de-force* by Mr. William Halsey Wood, and the masterpiece of the period, the design submitted by one Buffington and made by the late Harvey Ellis.

Hunt, who found his taste for Classic work opposed by the wave of Gothic and "Picturesque" popularity, had meantime compromised with the public by taking into association with himself Henry O. Avery, and together they produced the designs for the William K. Vanderbilt house, Marquand house, and others in the French transitional styles of Francis I. and Louis XII. The Vanderbilt house was very successful, one of the most charming designs I have seen, either old or modern, in the style. Henry P. Kirby, of New York, produced some fine imaginative studies in this style, which he published in his book of "Compositions." A number of strong men were won over to the style of the Early French Renaissance, including Ellis, who produced some interesting work in St. Louis, among other things the City Hall; Bruce Price, of New York, who designed the Chateau Frontenac, an hotel for the Canadian Pacific Railway at Quebec; and Clarence Luce of New York, Louis Hickman of Philadelphia, Julius Schweinfurth and George Newton of Boston, made studies of conspicuous merit, nearly all of which were produced between the years 1888 and 1892. In 1889 several works by Messrs. Carrere and Hastings were published, which had been built at St. Augustine, Florida, in the style of the Spanish Renaissance, but highly original and beautifully adapted to American needs, composed on lines of pure design and ornamented with paintings, mosaics, and decorative sculpture. Messrs. McKim, Mead and White produced several works in the Italian Renaissance style—the Villard houses and the Century Club; the Madison Square Garden, with the tower similar to the Giralda of Seville, and the *New York Herald Building*, by Stanford White. The publication of the early studies by Mr. McKim for the Boston Public Library, which clearly showed that it owed its inspiration to the Library of Ste. Genevieve, in Paris, had a very beneficent influence, and for several years was regarded by architects and the public generally as the finest example of architecture in the United States. Its extent and costliness indicated something of the demands for education of

the citizens of Boston, and its conservative architecture is unquestionably only a reflection of the character of the representative people of that city.

The Columbian Exhibition afforded an opportunity, for the first time, of bringing together the combined artistic abilities of several of the then leading architects of the country. Its completion marks the end of the experimental period and the commencement of the school of the present day. Again the best work owed its inspiration to French designs. From the time of this Exhibition down to the present day the history of the development of American architecture discloses a rapid march of progress. The Classic influence, re-established in the public favour by the Exhibition, has been maintained, and has been accepted in one or another of its manifestations throughout the country. Numerous architectural schools have been founded: and the old ones at the Cornell, the University of Illinois, and the Massachusetts Institute of Technology, improved their courses of instruction, modelled in principle upon that of the great school of Paris. The atelier system, first attempted by Richard Hunt, was successfully inaugurated about fifteen years ago (by Mr. E. L. Masqueray, Chief Architect of the St. Louis Exposition, 1903, who was at the time Hunt's chief assistant), and has been fostered by the Society of Beaux-Arts Architects, which has made its principal objective the education of the younger men. The Architectural League of America—a society composed of societies, whose members are the various architectural clubs which in several of the large cities do auxiliary work to that of the Society of Beaux-Arts Architects, especially as regards the education of those office-trained men whose circumstances prevent them from taking a regular course in one of the universities—has given birth to and rocks the cradle of the architecture of the future.

It would be an almost Homeric catalogue that would attempt to include the works worthy of honourable mention which have been built since the time of the Columbian Exposition, and I am sure I need only name a few of the architects who have produced them to recall to your memories views of different works of merit by each of them, as Daniel Burnham, Chief Architect of the Columbian Exposition 1893, McKim, Mead and White, George B. Post, John M. Carrère, Chief Architect of the Pan-American Exposition at Buffalo 1901, Walter Cook, Thomas Hastings, Cass Gilbert, Whitney Warren, E. L. Masqueray, R. H. Hunt, Henry Hornbostel, Ernest Flagg, Louis H. Sullivan, Peabody and Stearns, Lord and Hewlett, York and Sawyer, Tracy and Swartwout, Edward Pearce Casey, Hornblower and Marshall, Despradelles and Codman, Wood, Donn and Deeming, Hiss and Weekes, Herts and Tallant, Hale and Rogers, Rankin and Kellogg [fig. 6], Trowbridge and Livingstone, Kelsey and Cret, Harold Magonigle, Donn Barber, J. H. Freedlander, C. H. Blackall, Arnold Brunner, John Galen Howard, J. Randolph Coolidge, Wyatt and Nolting, Pell and Corbett, Albert R. Ross, Howells and Stokes, Shepley Rutan and Coolidge, Guy Lowell, Parker, Thomas and Rice, Cope and Stewardson, Frank Miles Day, Kirby, Petit and Green, Edgar Seeler, and Raymond Almiraal.

Of those who indulge their fancy in Gothic the most successful in obtaining picturesque results are Messrs. Haight and Githens, Cram, Goodhue and Fergusson [fig. 7], Allen and Collens, Henry Vaughn, Cope and Stewardson, Field and Medary, and, though only occasionally, Julius Schweinfurth, Frederick M. Mann, Albert Kahn, Maginnis, Walsh and Sullivan, and R. Chipston Sturgis.

Of the younger fraternity whose ability in monumental work has been given opportunities to make itself known are John Russell Pope, Kenneth Murchison, Janssen and Abbott, Delano and Aldrich, Carpenter and Blair, Waid and Parsons, D'Hautville and Cooper, De Gelleke and Armstrong, Louis C. Spiering, Mariner and La Beaume, Calvin Keissling, Jackson and Blake, Andrew Sauer, Paul and Seymour Davis, John Van Pelt, W. W. and Hunt

Bosworth, J. Milton Dyer, J. M. Lyle, A. H. Cox, Duhning, Okie and Ziegler, W. K. Fellows, and Howard Greenley.

Then there are those who, either by choice or force of circumstances, have devoted themselves to some special class of work, as residences. Of the great number of these architects I will mention only those who have done a considerable amount of excellent work, which enables me to include Foster, Gade and Graham, Wilson Eyre, Charles Platt, Oswald Hering, Lawrence and David Boyd, Little and Browne, Chapman and Frazer, W. G. Rantoul, Claude Bragdon, Alpheus Chittenden, Elmer Grey, Myron Hunt, Frank Lloyd Wright, Hugh Garden,

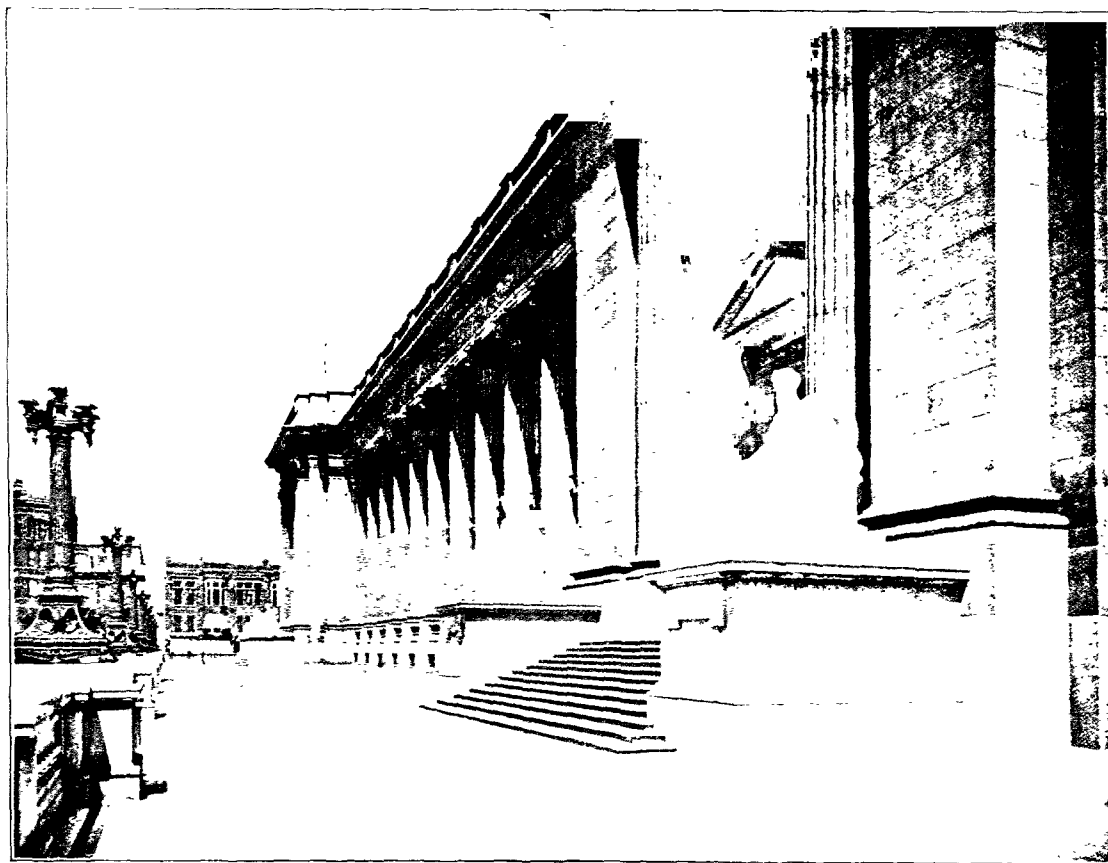


FIG. 6.—U. S. COURT-HOUSE AND POST-OFFICE, INDIANAPOLIS, IND.—MAIN (SOUTH) FRONT LOOKING ALONG THE TERRACE.
(Messrs. Rankin & Kellogg, Architects.)

Robert Spencer, Frank Chouteau Brown, John T. Comes, Hoppin, Koen and Huntington, Grosvenor Atterbury, Percy Griffin, James T. Kelley, Newman and Harris, Charles Barton Keen, Meade and Garfield, George B. Page, and Stratton and Baldwin.

These names stand for thousands of well-designed buildings erected during the past decade or two, and there are others.

It is safe to predict great work in the near future from a number who are as yet comparatively unknown, or well known only as draughtsmen or students: Leonard Schultze, George Licht, Edwin Hewitt, Arthur Brown, jun., Theodore Peitsch, J. F. Clapp, George B. Ford, E. Frere Champney, John Wynkoop, W. Sydney Wagner, Frederick C. Hiron, Huger

Elliot, E. J. Willingale, Arthur Nash, W. T. Groben, John H. Phillips, Oscar Wenderoth, Roger Gilman, Walter Karcher—to which list many names are constantly being added.

Let us suppose that we now return to Washington and are met at the gate to the midway of the station by a friend whose acquaintance we made years ago when we were architectural students in an office "out West": he was then the erecting engineer on a job designed by the "boss," but is now a Congressman, who we shall call O'Grady of Montana. He is short, stout, and talkative, well-groomed and well-dressed except for his watch-chain, plain-spoken—calls a spade a spade—and knows Washington from A to Z and says so!

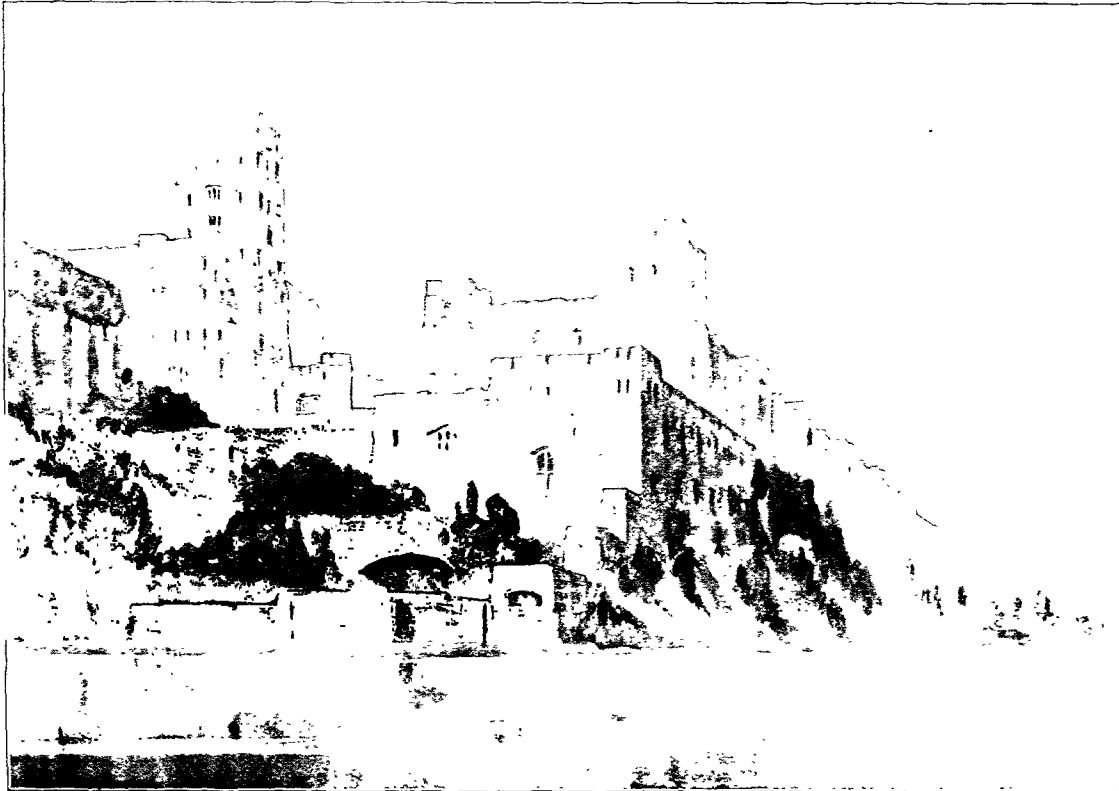


FIG. 7.—U.S. MILITARY ACADEMY, WEST POINT. THE APPROACH FROM THE RIVER.
(Messrs. Clark, Goodhue & Fergusson, Architects.)

"Hello! old man," he says; then, "Who's your friend? English architect? Oh yes, of course—now I know who you are: have often seen your name below the pictures in the architects' papers at the club. Just been reading your article. What d'you think of this country, anyway? Seen much of it? How long are you going to be here? Great Scott! three days! Expect to see the whole country before you go, or just the station? Going to write a book upon it when you get back? Have a ball? Good buffet here—not up to Charing Cross though: hey, what?" and turns to us with the remark: "You'll find Washington changed since you were here last: lots of things have happened. Say Mr.—um—English architect—I beg your pardon, I forget your name—I've been reading about that ideal town you're going to show us twenty years from now, and when you get it ready I'm coming over to have a look at it—"

"See here, O'Grady, don't you understand," we interrupt, "that was a purely imaginative study. You must not rag our friend in this way."

"Not at all—take it from me that we'll all live to see that town of yours. I'll back

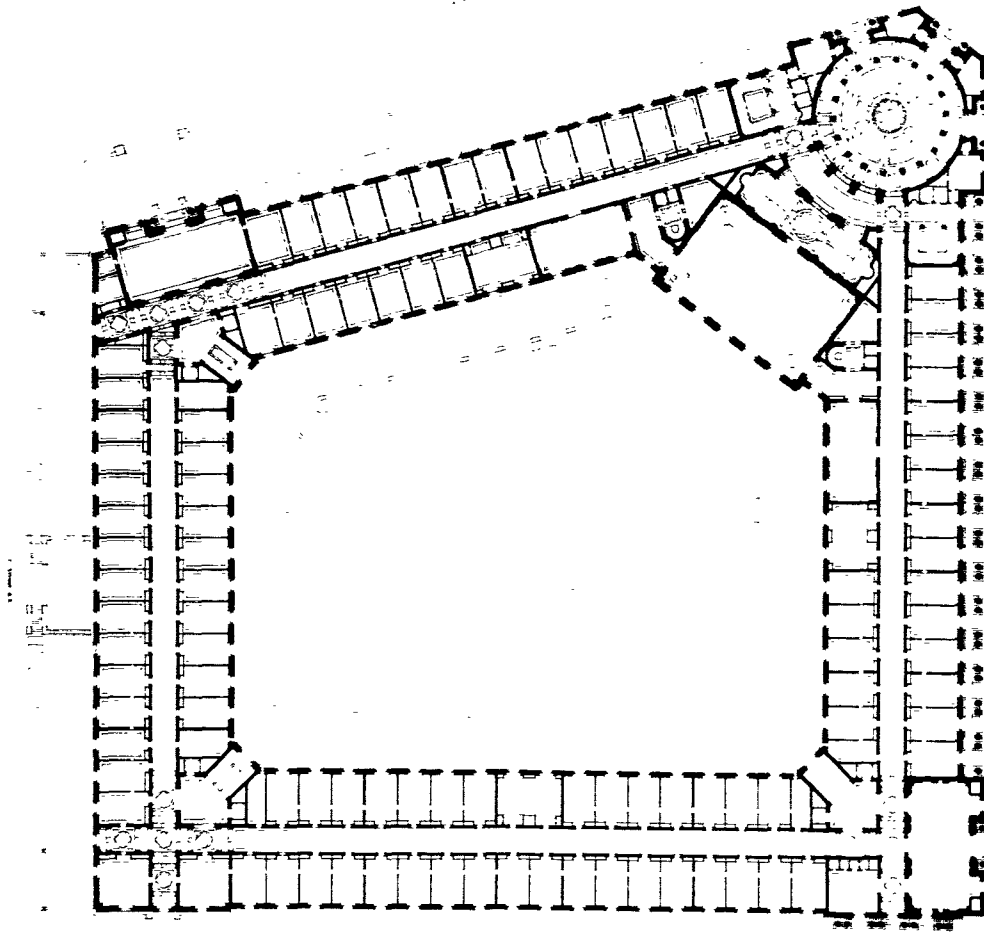


FIG. 8.—PLAN, OFFICE BUILDING OF THE HOUSE OF REPRESENTATIVES, WASHINGTON, D.C.
(Mosses, Carrère & Hastings, Architects.)

Charlie Yerkes' opinion against any of 'em, and you know what he said about John Bull? 'It takes a long time to get him going, but when he starts nothing can stop him'—and that's a fact. Of course you ought to have made an estimate; but that's easy. Work the same game old Walter worked when he built the new dome on the Capitol."

"That sounds interesting," says our guest, who hasn't turned a hair while O'Grady has been talking. "tell us about it."

"Well, it's this way," says O'Grady, "you see, he had put up the big wings first—all white

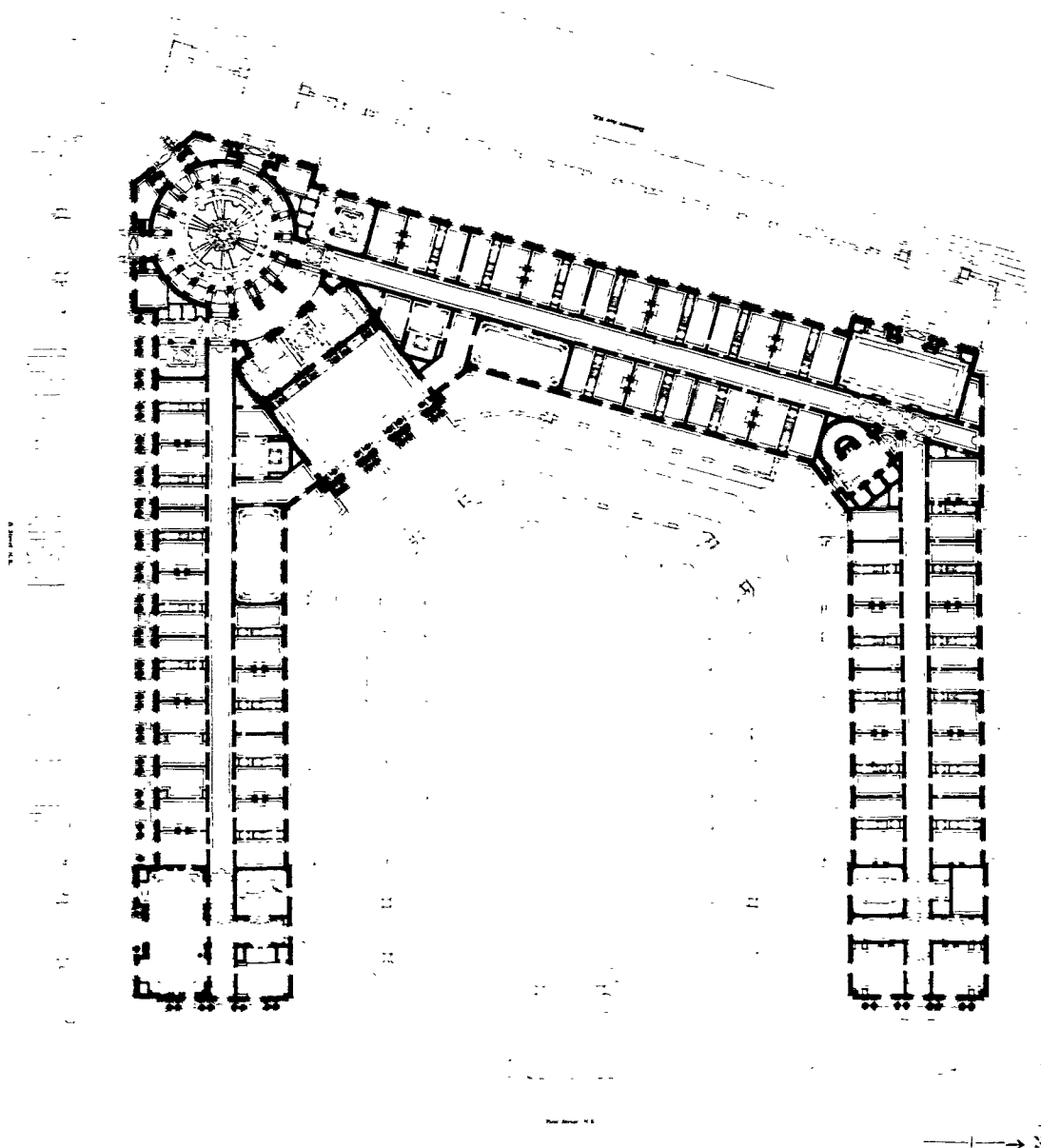


FIG. 9.—PLAN, OFFICE BUILDING OF THE SENATE, WASHINGTON, D.C.
(Messrs. Carrere & Hastings, Architects.)

marble—and they made th' old dome look like a wart on top of th' old building: so one night when Congress was adjourning, when the representatives from Texas and Kentucky had been drinking champagne from the celery glasses, an' the ladies were there to see what was going on and say 'how lovely,' he flashes a big picture all done with a blue sky and green trees—none of your impressionist sketches with the sky green an' th' trees blue - and says: 'Gentlemen, will you

appropriate before you adjourn a hundred thousand dollars in order that this work may proceed? Of course they would! and of course they did; and the money just paid for tearing down th' old dome, which had been pretty solidly built; and then they got another appropriation. Can't do things like that in England? No, I suppose not. But speaking of ideal towns, I suppose you know that away back in Washington's time there was a frog-eating Frenchman who came here and planned *this* town. According to all the authorities he did a good job of it, and we have a right to be proud of it, and as far as I am concerned I *am* proud of it, and proud of the Frenchman, for he was a good American; but the Frenchman isn't entitled to all the credit, though he was a prophet without many honours in his adopted land, and, I am afraid, without just payment for what he did. We all know now that he was a great man, and we voted a lot of money at the last session to have his remains dug up from the Riggs

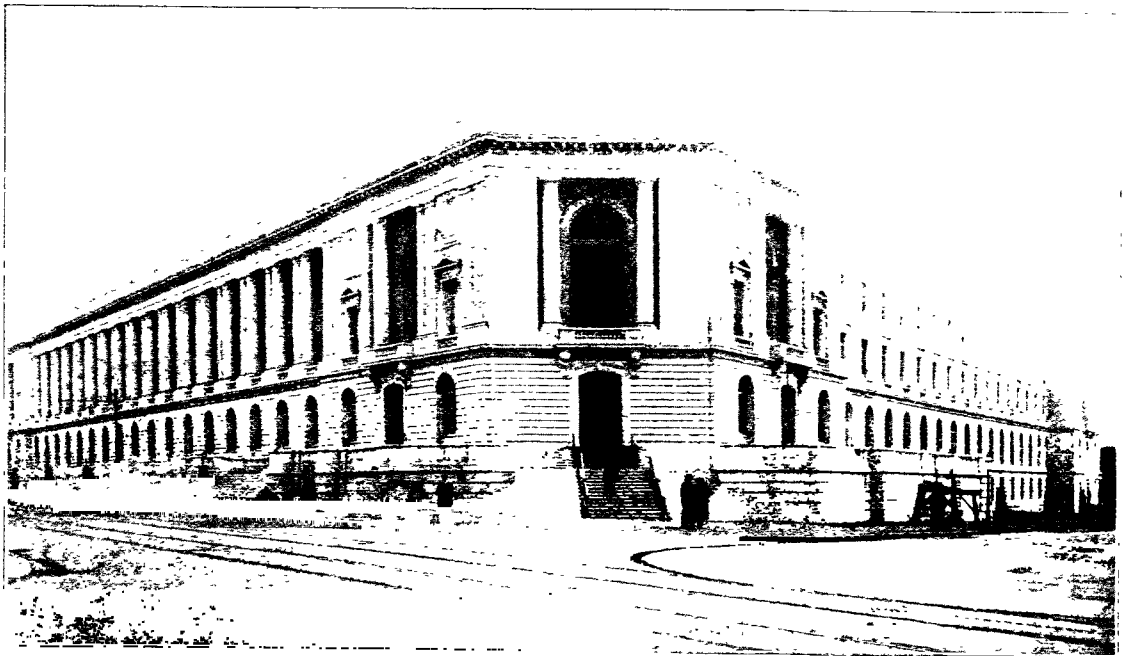


FIG. 10. OFFICE BUILDING, HOUSE OF REPRESENTATIVES, WASHINGTON, D.C. (VIEW FROM NORTH WEST).
(Messrs. Cullitt & Hastings, Architects.)

farm and buried at Arlington; and when the new bridge is built and the Mall made into an avenue that is going to make the Champs-Élysées a second-rater, I am going over to the national necropolis to see his monument. Speaking of this avenue, have you ever seen *this* map? It was made by the committee appointed in 1901 to sit during recess and report to the Senate upon a comprehensive scheme of parks for the district of Columbia. Senator McMillan was at the bottom of that scheme. He was a good Irish-American."

"Not at all!" we correct. "He was a Scotch-Canadian, was brought up in Detroit, and became Senator for the State of Michigan."

"That's right," assents the Congressman. "A Scotch-Canadian, and all the better American for that! Well, his town, Detroit, was laid out by the same Frenchman—what's his name?—L'Enfant!—and McMillan took a lot of pride in his own town; also a great interest in the map of Washington. He thought the park system of the national capital should be given some consideration by the Government, and used his influence to bring it

about. The Senate Commission appointed an advisory committee—Messrs. Burnham, McKim, Olmstead, and St. Gaudens. The first two were architects, the others a landscape architect and a sculptor respectively. Burnham had been Director of Works at the Columbian Exposi-



FIG. 11.—ROTUNDA IN THE OFFICE BUILDING OF THE HOUSE OF REPRESENTATIVES, WASHINGTON, D.C.
(Messrs. Clarke & Hastings, Architects.)

tion; as far as I know he did not personally design any of the buildings, but was responsible for the selection of the architects who did, and he stood between them and the company's officers, and educated the latter up to the ideas of the former, and McKim, Olmstead, and

St. Gaudens had all worked with him in producing that Exhibition. Just before the Senate appointed the Park Commission Burnham had been asked to design a new station for the Pennsylvania Railroad for its site in the Mall, but when the Commission decided that the only thing to do was to go back to L'Enfant's plan—if possible—it was Mr. Burnham who went to the officials of the railroad to induce them to remove their tracks—the greatest obstruction to its possible development—from the Mall. That was not easy. The site in the Mall



FIG. 12.—STAIRCASE HALL, OFFICE BUILDING, HOUSE OF REPRESENTATIVES, WASHINGTON, D.C.
(Messrs. Carrère & Hastings, Architects.)

was better than any that could be offered in exchange, and at first Mr. Burnham's suggestion was strongly opposed by the railway officials. But when he proposed a Union Station and explained what it was desired to do as regards the Mall, the President of the Pennsylvania, remarking that the Pennsylvania was 'pretty big, but not big enough to stand in the way of such an improvement as this,' acquiesced. The President of the Baltimore and Ohio—the other railway entering Washington—carefully considered the proposition, agreed to do all he could to meet the wishes of the Park Commission, and this building in which we are standing is the result. A tunnel was built under the town, as you see on the map. I am used to big jobs, but this was a cracker-jack. The terminal site is 165 acres."

"Twenty-five acres larger than the whole ground of the Franco-British Exhibition!" exclaims our visitor.

"Yes—165 acres, and as it lay at low level, tide-water got in below, so it required more than 3,500,000 cubic yards of filling in. The front part of the building is about the same size as your New County Hall—I think it is said to be about 765 feet long. It is built of white granite, and the whole scheme, including train sheds and lay-out of the yards, cost about twenty million dollars—that is more than four million pounds of your money. But come! Take a look at the place! This waiting-room is the largest in the world, and . . ."

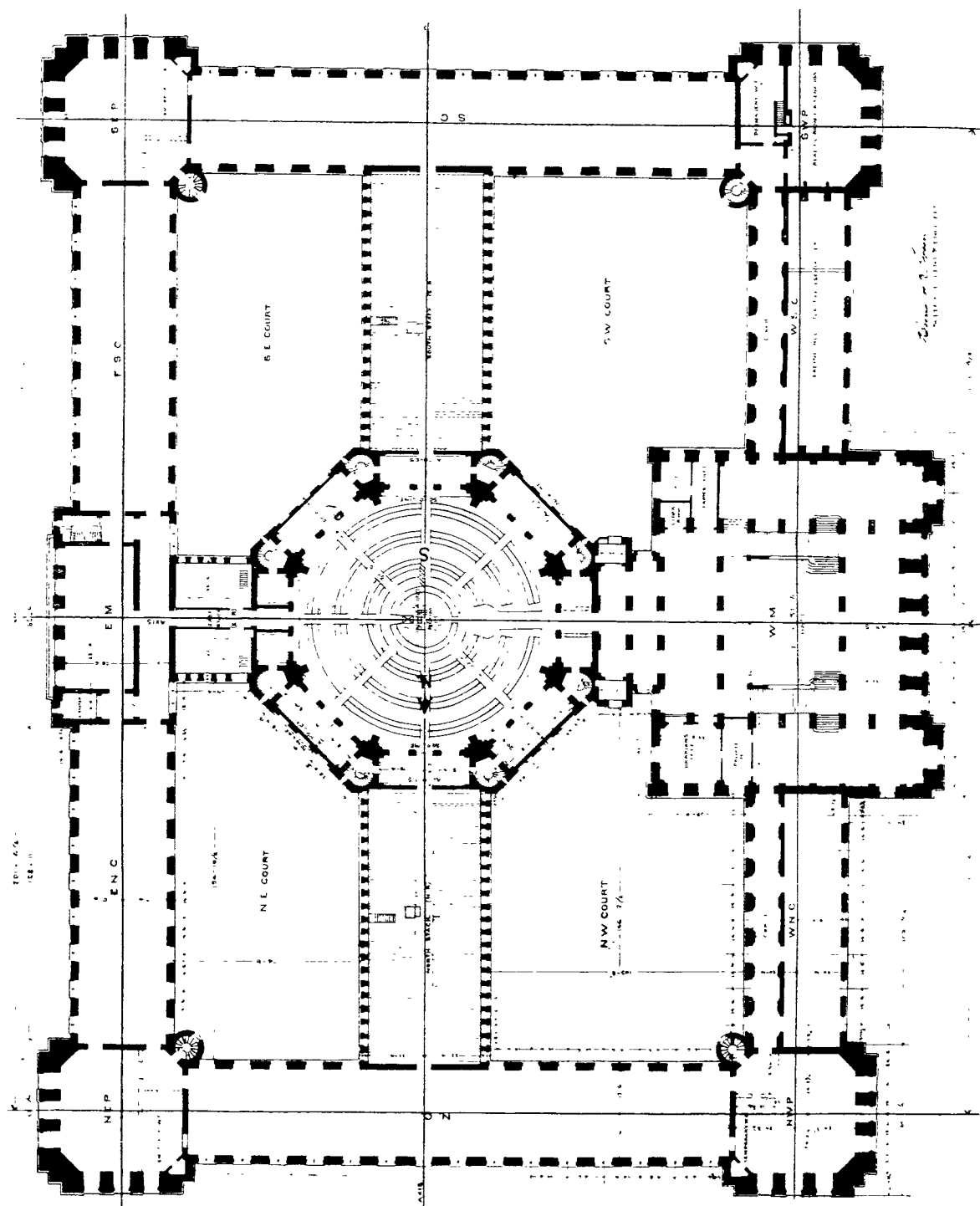


FIG. 13.—CONGRESSIONAL LIBRARY, WASHINGTON.—GROUND FLOOR PLAN.
(Messrs. Smithmeyer & Pelz, P. J. Pelz, E. P. Casey, Architects.)

"Never mind about that!" we protest.

"Well now," he continues, "do you know when we were considering—over in the House—making an appropriation towards this scheme, I said the same thing to the Secretary of the Copper Miners' Union, who had come to see me about putting on a 'rider' to make the roof of copper—he came back at me with those very words? And he went on to say: 'I don't care how big it is, but look out that it's good. Don't make it so big that everybody will see it, and so ugly that everybody will curse it and the nation and the railways will be ashamed of it. Look out that there's no Aberdeen gold and no imitation marble used, and—*and* let 'em know that one copper roof is cheaper in the end than three of cement tiles that fade and won't stand the weather—make it *better* than anything like it in the

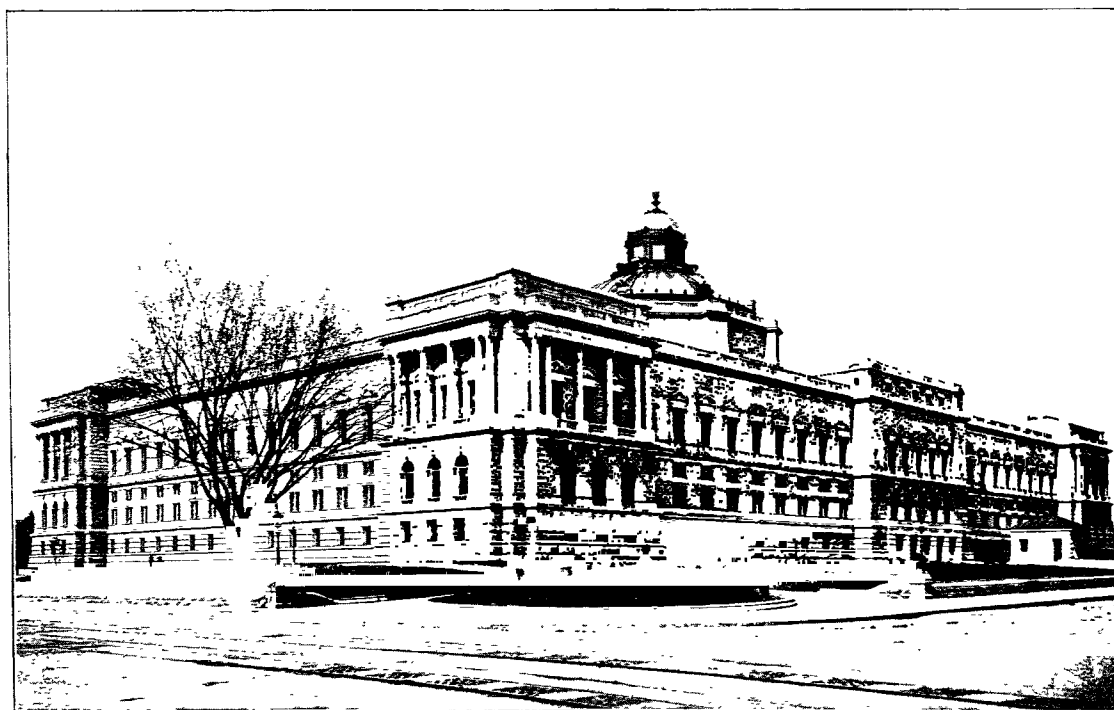


FIG. 14.—CONGRESSIONAL LIBRARY, WASHINGTON, D. C. (Messes. Smithmeyer & Pelz, P. J. Pelz, E. P. Casey, Architects.)

world, and the miners 'll be with you.' Still, you always tell us how big the Roman halls were, and there wasn't one as big as this in all Rome. This room is 220 feet long, 130 feet wide, and 90 feet high. The outside of the building is designed as the entrance gate to Washington, and that is the reason it is regarded as one of the public buildings, and is intended to be in harmony with the others rather than look like a railway station. The entrance arches are 50 feet high, and the centre feature of the front is about 100 feet."

"That is to say, about 20 feet higher than Selfridge's in London," comments our Englishman.

"Yes, and designed by the same architect—Burnham," observes O'Grady, and continues: "The plaza in front will be a great improvement—the Government and the District are doing that—and will make a fine approach to, and give a good view of, the station. . . .

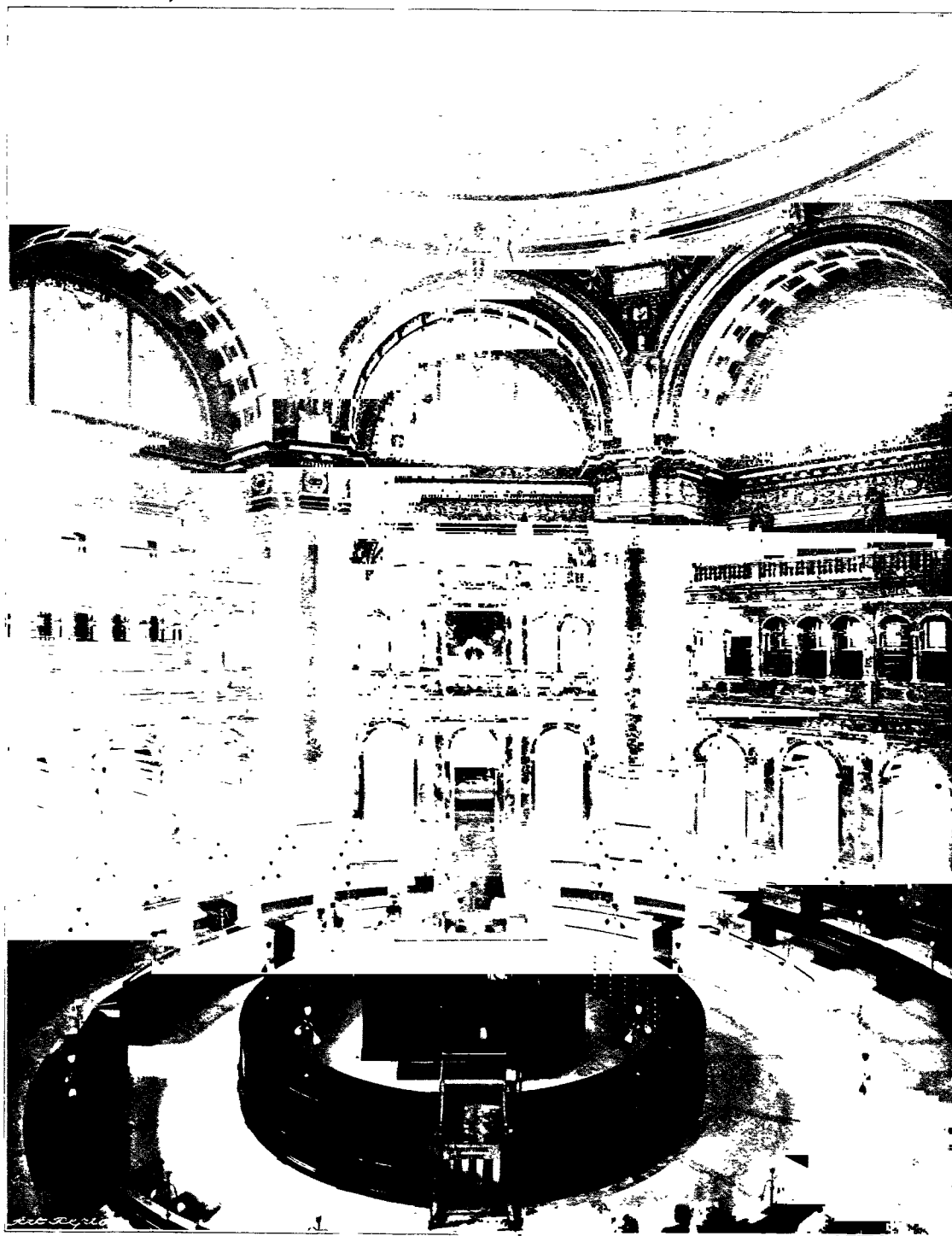


FIG. 15.—CONGRESSIONAL LIBRARY, WASHINGTON: THE ROTUNDA.

... Speaking of the District, you know it has just built a new municipal building! Quite a fine structure, too, about two hundred by two hundred and fifty feet, and one hundred feet high—we shall see it later. Something like your new Government Office, but it hasn't any towers."

We have passed into the carriage porch while the Congressman has continued to tell us of the new works in Washington.

"Jump in this cab," he commands, indicating a motor carriage, "and we'll drive round and see what has been done since the Senate Committee recommended that the only way to make Washington beautiful was by carrying out its 'Park System'—that is 'a rose by another name' for a town plan. I haven't paid much attention to the parks themselves, but I've taken an interest in the buildings: for in the days when I was a building superintendent—before I became involved in politics—I had an idea of becoming an architect. See that building just ahead of us—that's the new Senate Office building, it faces south [fig. 9]; and the one to the left is the Library of Congress, facing west [fig. 13]; over on the far side of the square facing north is the House Office building [fig. 8], and of course you recognise the east front of the Capitol, the sandstone part of the old block is painted to look like the new wings, but the front is soon to be pulled down and rebuilt in marble, according to the designs of the architects who built the Senate and House buildings, who designed the whole group relatively—not each building independently of the others.

"There's another thing Walter did," continues O'Grady. "Before he died, he made a plan for extending the east front of the Capitol by arranging offices along it [fig. 5], and left it to his heirs to go to Congress for the money when the country couldn't stand the appearance of the old front any longer. The excuse as to offices being needed won't work now, because Congress has built for itself these two fine office buildings"—indicating two white marble edifices with coupled Doric colonnades as we turn west along North B Street, then south and stop in front of the Capitol, while Mr. O'Grady points out that the Library has blocked up the view down Pennsylvania Avenue to the south-east, and also that it occupies but one-half of the east side of the square. "At the other side we shall probably build the Supreme Court Building, which we are bound to have soon. The Senate Commission did not approve of another building just like the Library, with a dome, and blocking up the view down Maryland Avenue, so we shall have to build some other building on the opposite corner—indeed, several more buildings are needed. This whole square is to be enclosed by public buildings in the future—the not very distant future.

"But as to the front of the Capitol, it isn't a question of needs but of appearances. The front is going to be rebuilt in marble, without any 'practical' subterfuge, and because at present it is unworthy to be part of a building that stands for the people of the United States. Walter made a plan to improve it, but the addition of offices would have been unfortunate for the effect. Carrere and Hastings have made some changes to his scheme that will make it just as it should be."

He pulls from his pocket a large pamphlet. "See here, this is the Report," which he reads as we turn to the right and drive round the square. "This is what the architects have to say about it themselves:—

"We respectfully submit Plan, Scheme A [fig. 1], as being, in our opinion, the most conservative and in every way the best solution of the architectural problems involved in correcting the defects of this facade, to which Mr. Walter called attention in his Report of 1865.

"Realising, as already stated, that the composition of this facade, and especially the relation of wall surfaces to each other, should be changed as little as possible, we have moved the entire front of the central portion forward, only so far as necessary to bring the main

wall of the building, at the centre, under the extreme projection of the dome, and give the dome the apparent support which it should have. At the same time, we have added one column on each side of the main pediment, broadening the pediment accordingly, so that it will dominate the two pediments of the Senate and House wings, which Mr. Walter so strongly felt should be done [fig. 5].

"In this scheme no consideration has been given to increased space within the building, and the problem has been solved strictly according to the architectural necessities of the case; nevertheless, the moving of the wall easterly twelve feet ten inches (12' 10") gives, on the main floor to the east of Statuary Hall, a series of alcoves which can be used to advantage for the additional storage of documents: and, to the east of the Supreme Court, a similar series of alcoves, back of the present screen, for retiring or robing rooms for the Judges. Similar alcoves would also be obtained, in both cases, on the floor above, which could be reached from the central portion of the building and used for various purposes. These changes would in no way affect any of the internal arrangements or even the decorations on the main floor."

We drive now to the House Office building [fig. 10], and inspect the beautiful interiors [figs. 11 and 12]. O'Grady is silent, but looks pleased and throws out his chest, while it is the architects in our party who wax eloquent. The design of these interiors seems to have commenced where the most refined and scholarly work of the best period of the style of Louis Seize left off: we see the rotunda and staircase-hall.

After a chop in the grill-room, O'Grady proposes a visit to the Library of Congress. "Let us go round to the back, which I like better than the front [fig. 14], and then drop in and see the entrance-hall, rotunda [fig. 15], and corridors," he proposes, and action is suited to the word. As we drive round the Library building he volunteers the information that "it was commenced by a couple of Germans, Smithmeyer and Pelz, but finished by three good Americans—General Casey, his son Edward Casey, and Bernard Green. But young Casey was the real architect who made it worth looking at: it wasn't his fault that the dome on the Library, when seen from Pennsylvania Avenue, looks as though it were on one wing of the Capitol. I guess he'd have it torn down now if he could: but he did pretty well with the interiors: and the plan too, which is by Smithmeyer and Pelz, is pretty good, and we'll leave the changes to the young lads who are now growing up, for there's a lot of work still to be done before we get to changes.

"The next thing to see will be the Mall." Again he fumbles with his papers, which he takes from his pocket—a reproduced detail of the Avenue, which, in accordance with the advice of the Senate Commission, is to be cut through the Mall from the middle of the west front of the Capitol straight to the Washington Monument, and beyond it all the way to the river—or almost: that is to say, to a round point near the river where the monument to Lincoln is to be built, and from which the approach to the bridge over to Arlington is to commence. You can judge from the plan as to what it will be like. "Two of the big buildings are almost built: that pair is only part of the Agricultural Department"—and, as the cab whirls down South B Street, he points to a pair of buildings on the opposite side of the Mall, reminding us slightly of those in the Place de la Concorde, Paris, and we remark upon the fact. "Yes," says O'Grady, "and it will look more like it when they build the central feature. What do you think of that 'link'?" he inquires of our guest, and without waiting for a reply remarks, "I don't know of anything finer than those two buildings near Maxim's, with the Madeleine in the background, as you see them from the Chamber of Deputies: but my idea is that if the Madeleine was brought right up into line with the other two, the big columns would make the little ones look small—in both senses of the word. The next one will be a good deal better when it is completed—that is the new National Museum, which is neither as big nor has it as

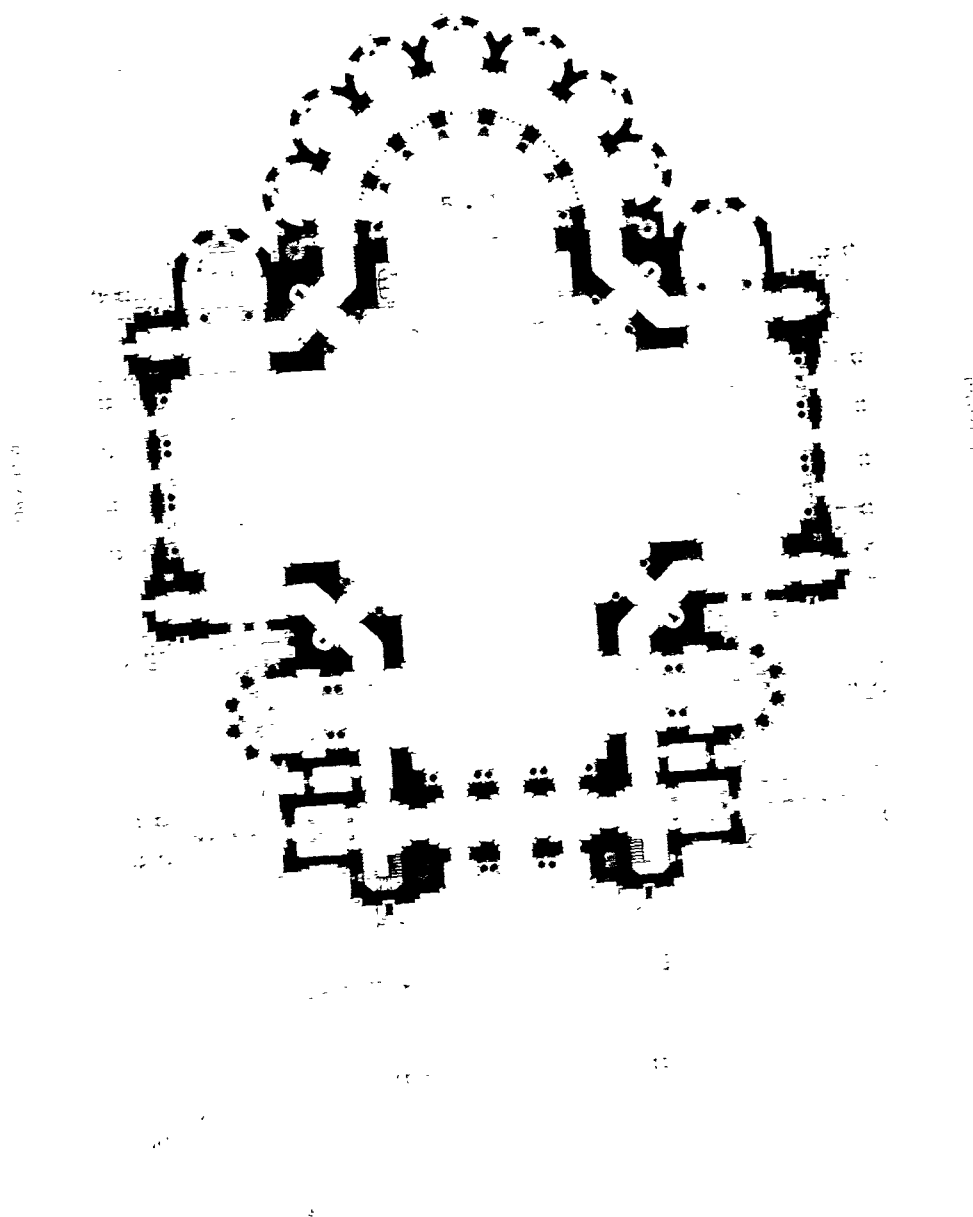


FIG. 16.—CATHEDRAL OF ST. PAUL, ST. PAUL, MINN.
(E. L. Masqueray, Architect.)

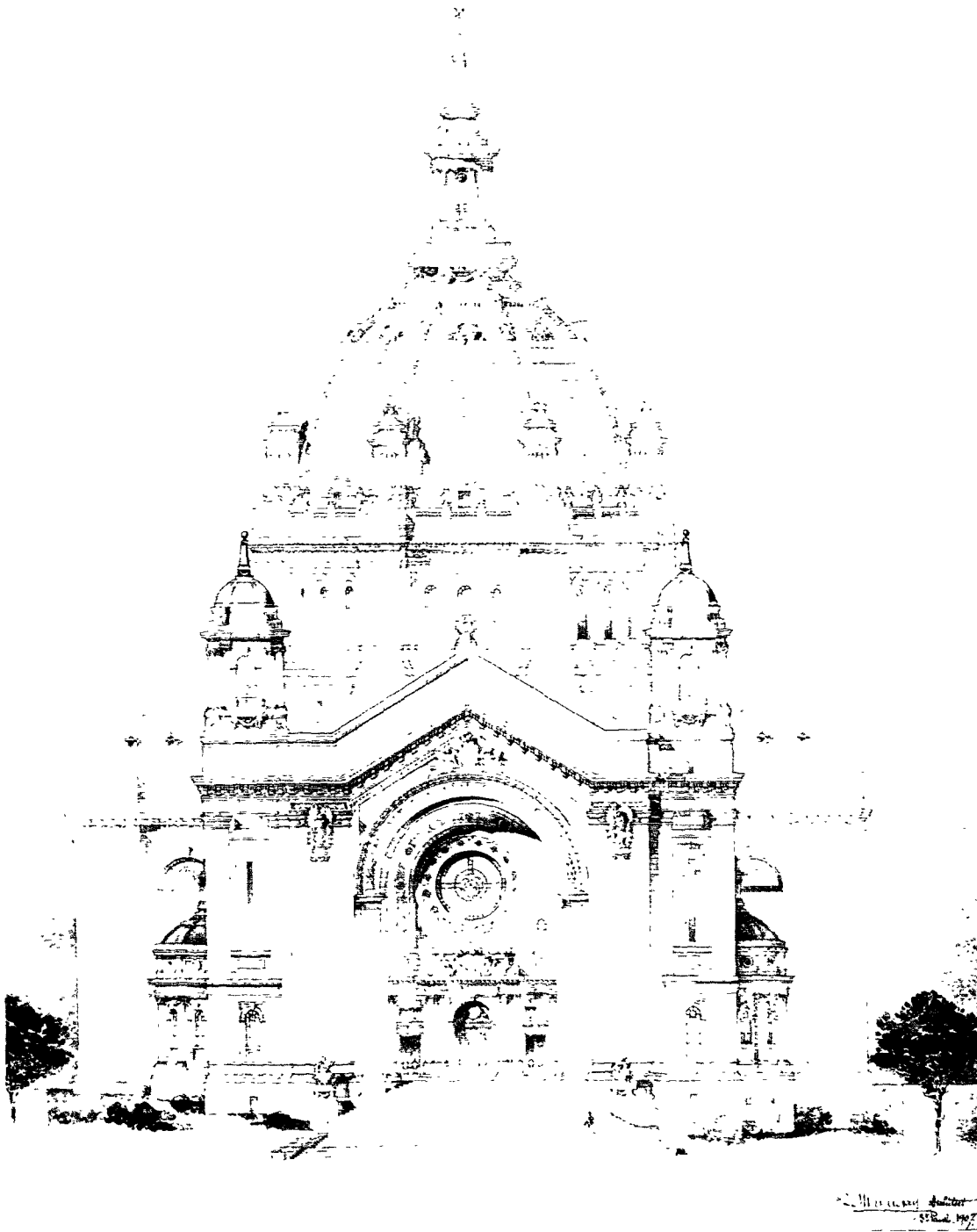


FIG. 17.—CATHEDRAL OF ST. PAUL, ST. PAUL, MINN.
(E. L. Masqueray, Architect.)

fine a collection as the British Museum, but hasn't much to learn from it in some other respects."

We have driven past the Washington Monument, and the Congressman points back over his shoulder and comments, "Only a pile of stone *now*—looks like a big telegraph post stuck in the mud—but when the base proposed by the Senate Commission is added and the trees planted in a regular way I think it is going to look well, because the small work around the base and the road leading up to it will make it look its 555 feet in height, and it will be more effective and look like a monument."

"This building which is going up on the corner to the left is the new Pan-American Peace Palace, by Kelsey and Cret, of Philadelphia; and just beyond is the club building for the Society which calls itself the Daughters of the American Revolution—most of them don't look it, but a few do."

"Here's a building that hits me right in the eye. Good! isn't it? The Corcoran Art Gallery. Has a ripping interior. Hey! *driver*! turn to the right and go round to the other side of the White House!" then to us, "We must go into the President's house, it will suit you architects to a tee! It was fixed up inside by McKim for 'Teddy' Roosevelt."

As we pass between the President's house and the Treasury we ask, "Why didn't you drive straight to Pennsylvania Avenue instead of coming round to this side?"

"Because," replies the Representative from Montana, "that State War and Navy building has got on my nerves; for an absolutely ugly building that's the limit! When I first came to Washington eighteen or twenty years ago, and my friend Jerry O'Rourke ran the Supervising Architect's office, I used to think his designs, or the designs his office-boy made, were all right; I couldn't tell them from those of Richardson or Harvey Ellis, though Harvey used to curl up in his chair and go to sleep when I told him so; but I never could stand Mullet's work, and this building is about his worst. Since this lot of new buildings commenced, there isn't a M.C. in Washington that hasn't become more or less interested in architecture, and some of them know which is the best of two good things. I guess the exhibitions of the Architectural Club have had something to do with it. I always go to see them regularly every year."

We enter, see the interiors, and leave the President's house; but O'Grady has continued to talk about the architectural exhibition and the water-colours, and we ask, "What other things are there to see? Was the National Church ever built? And how about this proposed new Avenue through the Mall—L'Enfant's West Capitol Street—does everything go smoothly, is everybody agreed?"

"As to the first question," he replies, "besides a number of good commercial and private buildings, there is the Carnegie Library, the War College, by McKim, Mead and White, but it's too late to go there now, so you can go to see that to-morrow morning and run over to Annapolis in the afternoon and see the Naval Academy (fig. 18) which we owe to your *confrère*, Ernest Flagg of New York. I mean we wouldn't have had the new academy at all if Flagg hadn't gone after the Navy men and told them their old buildings weren't fit to train a dog in. As to the National Church, no! As a nation I don't think Americans go much on religion. The old "House" Chamber in the Capitol is used for the statues that L'Enfant wanted a church built to contain. The only cathedral in America that would do for Washington is the new one that your friend Masqueray is building in St. Paul, Minnesota (figs. 16 and 17).

"I thought," remarked our English friend, "there was a handsome cathedral being built from designs by Bodley. Do you know about that?"

"Do I know about it? That—" he is about to say something but cannot then changes his mind and says softly: "I have seen the design, and I suppose it is really a fine thing,

though I think Gothic is an anachronism, and in Washington an exotic. A Gothic cathedral in Washington is as *bizarre* as a forty-story office building would be in Oxford."

"But what other buildings remain to be built? I should think nearly all have been either completed or commenced," says our guest.

"Well, the Treasury Department is overcrowded; it would be glad to get rid of the office of the Supervising Architect, and the Supervising Architect would probably be glad to be rid of the Treasury Department. There is that Council of Fine Arts recently appointed by President Roosevelt which must be made permanent and given a home somewhere—possibly in that corner opposite the site suggested for the proposed Supreme Court-house. It will not be long before the Government will find it expedient to create a separate department to take care of its works—possibly two departments—one a Department of Works and the Fine Arts, which would control everything of an architectural character—the buildings, bridges, parks, and all their details, furnishings, equipment, and decorations, which would relieve the Treasury Department of a heavy load; and another, which might be a Department of Engineering Works, to relieve the War and Navy Departments of a similar strain, by taking over all such works as dams, sea-walls, harbours, levees, forts, earthwork, and canals. Before long, even with these changes, one of the three departments in the State War and Navy building will have to find new quarters, and even for the two that will be left it will remain inconvenient and unsatisfactory—and that means unprofitable."

"You don't suggest," we exclaim, "that the State War and Navy building will ever be materially altered, do you?"

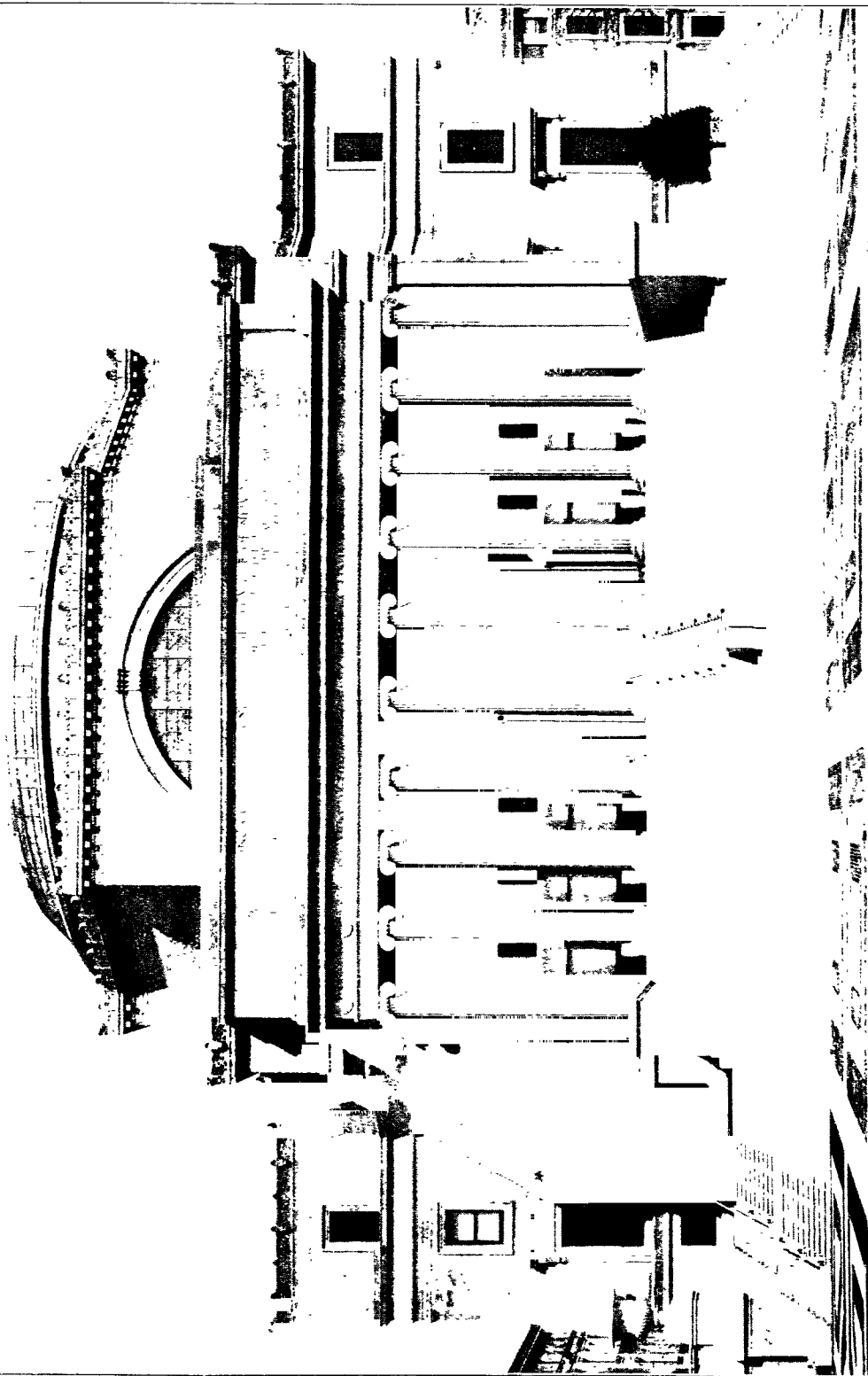
"We shall see," he replies. "You would have said the same thing about the New York Post Office five years ago, but it has been proved that the country can save money by building a new one. By the way, I haven't answered your question about the Mall—as to whether everybody is agreed—as a matter of fact the Department of Agriculture did try to interfere with the scheme, but Senator Newlands stopped the game by placing a 'rider' on the appropriation, so that the Department could only get the money for the building by setting it up in a given position. But I believe the time will come, and I think within the next four years, when all will be agreed that the plan of the Senate Commission must not be altered. Why do I think that? Because nearly every new M.C. is a college man, and nearly every college of importance is planned on a comprehensive scheme. See the new plan for the University of Minnesota by Gilbert, and those for the Western University of Pennsylvania by Hornbostel; then there are Cornell, Pennsylvania, Columbia [fig. 19], the University of the City of New York, Harvard, Yale, Princeton, Washington in St. Louis, the University of California, to mention only a few which have been, or are in process of being, built to a pre-arranged plan. They cannot help but have some influence."

"So you really think my Ideal Town is a possibility?" asks our English guest.

"I am sure it is a *possibility*," responds O'Grady, "but whether or not it is a probability depends more or less upon your own professional fraternity—you know the sayings as to the enemies of one's own household, and about households divided against themselves. I can remember the days when every architect who came to see me not only 'knocked' the bad work of the Supervising Architect under the old *régime*, but also wanted his job. It's different nowadays, nobody seems to have an axe to grind, they all work for the general welfare in public and have their rows out between themselves privately; of course there are still among them the 'yellow dogs' who bark at everything but their own bone, but those that are any good belong to one or another of the societies—sometimes to several, and they are all pals. They come here organised like an army: there are three or four strong societies, but you cannot put one up against another, for they pull together—and at times let



FIG. 12.—THE UNITED STATES NAVAL ACADEMY, ANNAPOLIS, MD.
(Type 1 Plan: Architect)



116. 19th-century COLUMBIA LIBRARY, NEW YORK.
(Messrs. McKim, Mead & White, Architects.)

me give you the tip—we don't *know* it, but we *suspect* that they *do* together. How do you stand as regards your leaders—or are you the leader yourself—or is your condition as ours was here a few years back, when every man was the sole leader of an army of one? Or are you in England suffering from the old complaint that used to be the rule here, in the days when the American Institute of Architects had only just come into existence, of not knowing who the leaders of your profession are until they are beyond the age when they desire active leadership?"

"How do you account for this new condition of things among the architects?" asks our guest by way of reply.

"Search me," says the Congressman—"How do you account for it?" turning to ourselves.

We reply: To several things; including, first, the system of education which enables America to know who their strong men are while they are still young—a system that is competitive and the results of the competitions made public. It is the French system—that of the *École des Beaux-Arts*—where each student knows exactly the standing and record of every other student as well as his own in every subject. The entrance examinations are to the schools—not to the Institute. Before a student has spent much time or money he knows whether it is likely to be worth his while to do so. Secondly, to fellowship which arises out of friendly association with one another in the architectural clubs, the universities, and the ateliers in Paris. To the influence upon a large personal following of young men by such strong men as Messrs. Charles McKim, John M. Carrère, George B. Post, Walter Cook, Cass Gilbert, and E. L. Masqueray; and of the college professors, Wm. R. Ware, A. D. F. Haulin, D. Despradelles, Warren Powers Laird, Frederick M. Mann, Emil Lorch, Paul Cret, and others; but more particularly to the generous impulse of one of the present leaders who had a great opportunity to show his mettle and proved equal to the occasion. This was the man who might have designed in his own offices all the buildings at the Columbian Exposition, but chose rather to recommend to the Exhibition Company to give out five of the largest buildings to his ablest contemporaries in his own town of Chicago, and five others to men practising in different parts of the country, whose loyalty to these co-workers was never found wanting, and whose integrity and ability—artistic, organising, and executive—proved him to be the fittest to lead, though he conceded himself that leadership to Richard Morris Hunt during his lifetime—Mr. Daniel Hudson Burnham, of Chicago, Chairman of the Senate Commission, which recommended to the Senate that the plan of the great *L'Enfant* should be adhered to.

VOTE OF THANKS TO MR. SWALES.

MR. ERNEST GEORGE, *President*, in the Chair.

MR. JOHN W. SIMPSON, *Vice-President*, said he had been asked to perform the pleasant task of moving a vote of thanks to their distinguished guest, Mr. Swales, for his very comprehensive and brilliant Paper. He wished some one with more personal knowledge of American work than he could boast of had been asked to fulfil the duty. Mr. Swales, as they all knew, was peculiarly qualified to read such a Paper. He was one of that brilliant staff of designers who were responsible for

the Louisiana Exhibition, was an old student of the *École des Beaux-Arts*, and a pupil of Pascal. With regard to the Paper, he did not think it fell within his province either to criticise or to discuss it. Mr. Swales had given them an admirable description of the work that was going on in the United States, and one could only appreciate the excellence of design which was being done by the leading men there. It was an old-fashioned principle in discussing a treatise or paper of any kind to endeavour

to draw some sort of moral from it. If he might venture to attempt such a task, the moral he would draw from Mr. Swales' Paper was the important influence that the French education of American artists had had upon their designs; the progress which had been made since the time that Hunt first came back with his criticism from France was marvellous, and the adaptability of the old Classic work to modern needs was exemplified in a most extraordinary way in American work. Here was a nation, pre-eminently a practical nation, dealing with vast commercial interests and building huge monuments, not as monuments, but as works for which they had practical necessity. They grafted the tradition and training and exact knowledge and delicate feeling for Classic beauty which they obtained from France upon their own gigantic needs, and produced such colossal works, such broad and magnificent designs as had been shown that evening. There was one point to which, even at that late hour, he should like to draw the attention of the President of the Institute—viz. that when the authorities in charge of the improvements at Washington found that the tremendous railway system of the Pennsylvania and the Baltimore and Ohio Railways ran into Washington right across the point where they wanted to run their great central avenue, they sent their architect, Mr. Burnham, to the railway companies to ask them to pull up their railway and shift it out of the way; and the most extraordinary thing of all was that the railway companies did move out of the way, and not only that, but they commissioned Mr. Burnham to build them the magnificent station they had just seen on the screen. He wondered if their own President could do anything about Charing Cross Railway Station on similar lines. If that and the bridge across Ludgate Hill could be moved Members would be most happy to see him entrusted with the commission to design a new Station on the other side of the river! In concluding, Mr. Simpson asked the Meeting to accord a very hearty vote of thanks to Mr. Swales for his charming and interesting Paper.

Mr. JOHN SLATER *F.R.S.* said he should like to second the vote of thanks for this most delightful Paper. He was sure it must have made them all green with envy to think that a young man could go over to America with a design for an enormous scheme for new Admiralty buildings and simply submit it to the authorities and have it at once

accepted. That was a state of things they should gladly like to see duplicated on this side.

THE PRESIDENT said it had been a great privilege to hear what Mr. Swales had been able to tell them, and they all thanked him most heartily. It was delightful to think of a city in which the people as well as the architects were willing to make sacrifices, and to pull down buildings to erect finer ones, or to make better ways through their city. He was afraid it would be long before they should see their way to do similar things in London.

Mr. SWALES, in responding, observed that Mr. Simpson's suggestion that their Chairman should go to the Charing Cross and Holborn people and induce them to move their railway station was an excellent idea. He would suggest, too, that Mr. Ernest George might do as Mr. Burnham did, scoop both jobs and make them into one. He was sure that that was what the public and the architects would like Mr. George to do, and was also confident that Mr. George would like to do it. Five per cent. commission on a four-million pound job was worth making an effort for, and perhaps he would take that into consideration. It might be possible to present other good schemes, such as Mr. Speaight had done. He had put forward an interesting plan to remodel the Horse Guards' Parade and St. James's Park, and he had submitted an estimate. He did not know how that estimate would work out, unless Mr. Speaight proposed to do as Mr. Walter had done—to ask for enough money, not to pull down a dome, but to cut down the trees at present on the site, and then to get another appropriation to do the rest of the work. These ideal schemes were very interesting, and if only one out of ten suggestions were to be adopted it was sufficient to make them worth striving after. It had often occurred to him that it was unfortunate that there was not some school in this country where such schemes could be devised and brought before the public—say at the Royal Academy. In the *École des Beaux-Arts* at Paris large monumental schemes were brought out in the programmes for the *Prix de Rome*, and especially in such competitions as for the *Chenavard* prize, for which each student made his own programme. That was a prize given to well advanced students, and it always brought out designs for some grand improvement of Paris or other city of France. That prize and the schemes resulting from it had greatly attracted Americans and had led to much of their interest in town planning.

PRESERVATION OF HOLYROOD CHAPEL.

A PARAGRAPH in the *Poll Mall Gazette*, referring to work now being carried out at Holyrood Chapel under the direction of H.M. Office of Works, having been brought to the attention of the Art Standing Committee, the Hon. Secretary of the Committee was instructed to communicate with Professor Baldwin Brown [H.A.], of Edinburgh, with a view to his making inquiries on the spot, and acquainting the Committee with the actual nature of the work in progress. As will be seen from his interesting and exhaustive description printed below, Professor Baldwin Brown has responded most generously, and the Committee at their last Meeting voted their cordial thanks to him for the time and trouble he had devoted to the inquiry and for the valuable report with which he had favoured them. As regards the preservation of Holyrood Chapel, the Committee are satisfied that the work of repair is being conducted with all the reverent care that could be desired for this venerable and historic structure. Mr. W. T. Oldrieve, F.S.A. [F.], Principal Architect for Scotland to H.M. Office of Works, under whose supervision the work is being carried out, has kindly supplied photographs from which the accompanying illustrations have been produced.

REPORT BY PROFESSOR BALDWIN BROWN ON THE WORK IN PROGRESS AT HOLYROOD.

As regards the first part of the quotation from the *Poll Mall*, there has been no controversy about Holyrood restoration for a year past, but certain persons have been repeating in fresh letters to the *Scotsman* the old arguments which have been long ago answered. No one here has attached any importance to these, and a week or two ago the *Scotsman* put its foot down on their authors in a good leader, and closed the correspondence. There never was the least real danger of "restoration" after the Trustees declined to act, but there was a good deal of talk and grumbling which will now die down.

It may be added that the situation has been somewhat changed within the last few days. The one argument which was urged with some show of reason for the restoration of Holyrood was based on the fact that the Knights of the Thistle had no Chapel of their Order, and that a restored Holyrood would offer the fitting accommodation which it is obvious the Order should possess. The *Scotsman* has now (March 12) intimated that the authorities of St. Giles' High Church have received a letter from Lord Knollys on behalf of His Majesty the King, as head of the Order of the Knights of the Thistle, and thus proceeds: "It was stated in the letter, we believe, that the Knights of the Thistle desired to have a Chapel or stalls of their own in

the capital of Scotland, that they had given up the idea of having such at Holyrood, and now wished to know if the authorities of St. Giles' would favour the idea of accommodating the Knights in the Cathedral. It is understood the communication has had its origin in the fact of Lord Leven and Melville generously placing at the disposal of His Majesty for this purpose his share of the £40,000 his father left for the restoration of Holyrood Chapel, which sum went back to the family estate on account of that project not being proceeded with. The sum in question amounts to £20,000 or £25,000." Further steps to be taken in this matter will be watched with interest.

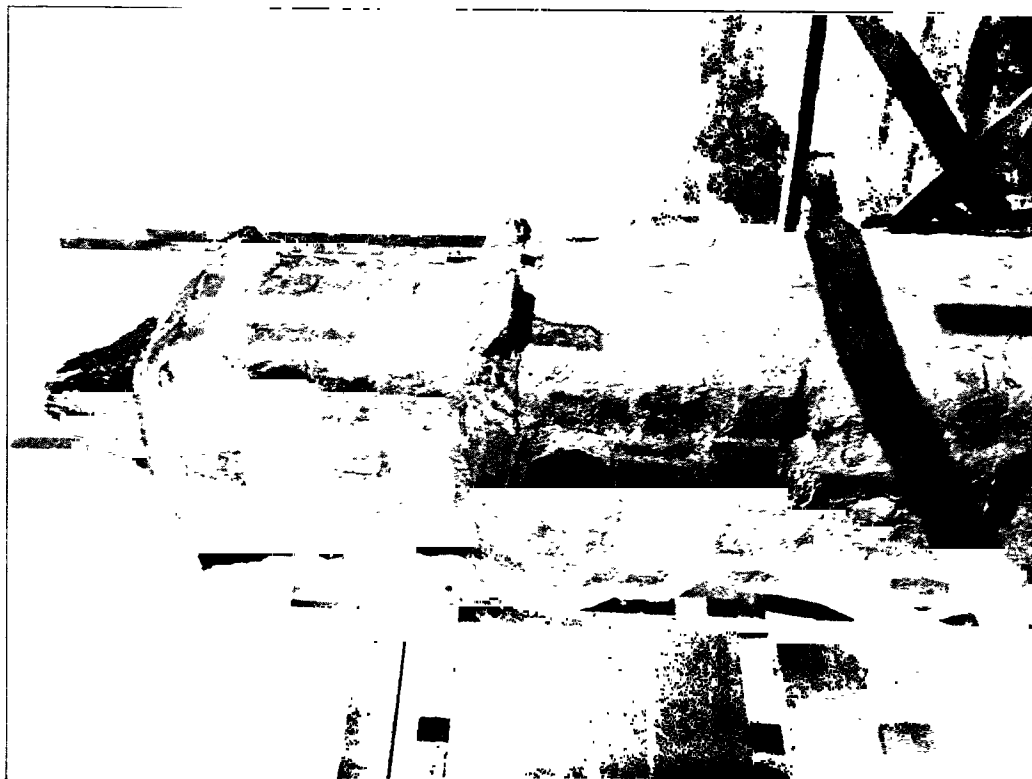
The following is what is being actually done:—

(1) The grouting-machine is being extensively used for the strengthening of the inside of the walls, which is in a very crumbly state in some parts. In the south wall of the south aisle the clerk of works told me that they pumped in at one place the best part of a ton of cement before it began to ooze out below.

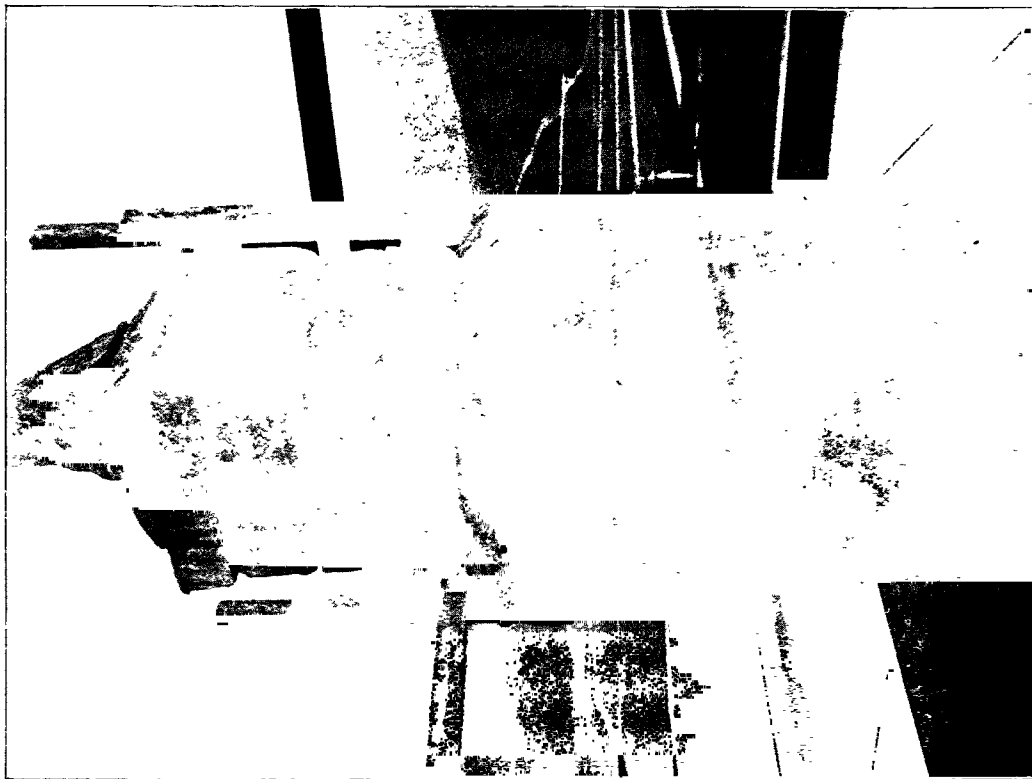
(2) The common slates (quite modern) which form the outer covering of the roof of the south aisle are going to be replaced by the stone slates so common in old times in Scotland, fragments of which have been found in the *debris* lying over the vaulting of the south aisle.

(3) The tops of the ruined walls, and of the flat-headed piers, from which the flying buttresses south of the south aisle start to abut against the south wall of the aisle at the triforium level, have been covered with asphalt, not visible from below.

(4) Treatment of the masonry generally. As is well known, a great amount of cement has been used in comparatively modern times at Holyrood to "make up" the stonework where this has decayed, and at the same time the joints were all "pointed" in such a way that the mortar was smeared over the faces of the stones in the neighbourhood of the joints. What is now being done is to remove all this mortar from places where it has been used to "make up" from the faces of the stones over which it has been smeared and from the joints: the aim being to expose everywhere the actual surface of the old stonework, even where it has been much worm, and to treat it with abundant spraying of baryta water as recommended by Professor Church. This spraying has been repeated ten to fifteen times, and has been successful in hardening the surface of the stonework. In the joints fresh mortar has been put in, but this is everywhere kept well back within the joint and below the surface of the stones. There is no attempt to bring the cement forward or to give it a decorative treatment. The result seems to me to be satisfactory. Of course there would be the obvious danger of scarring the surface of the old stones in the process of removing the mortar or cement, and I naturally looked carefully to see how far this had happened. Traces of such a thing are



Before repointing (25 June 1908)



After repointing (11 December 1908)

FIG. 1. -HOLY ROAD CHAPEL. PIER AND BASE OF DECEASED PINNACLE, AGAINST CLEISTORY WALL, ON SOUTH SIDE OF NAVY



FIG. 2 — MONASTERY CHAPEL — ONE END OF VULTURE WALL, SOUTH SIDE (15 JULY 1969)

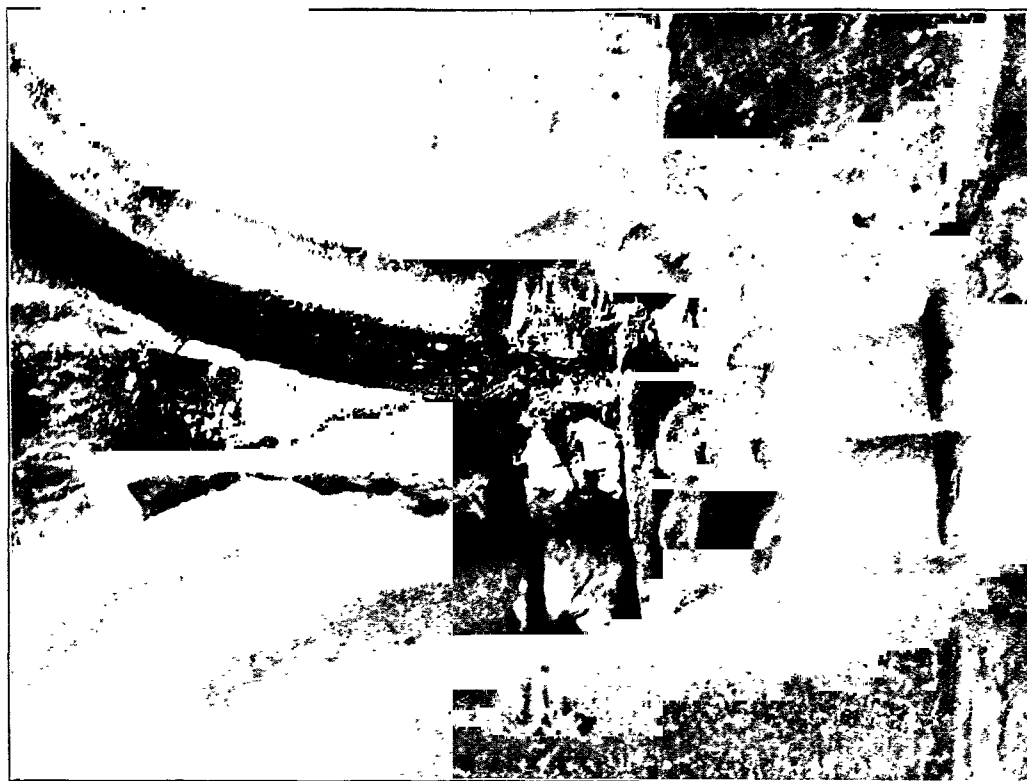
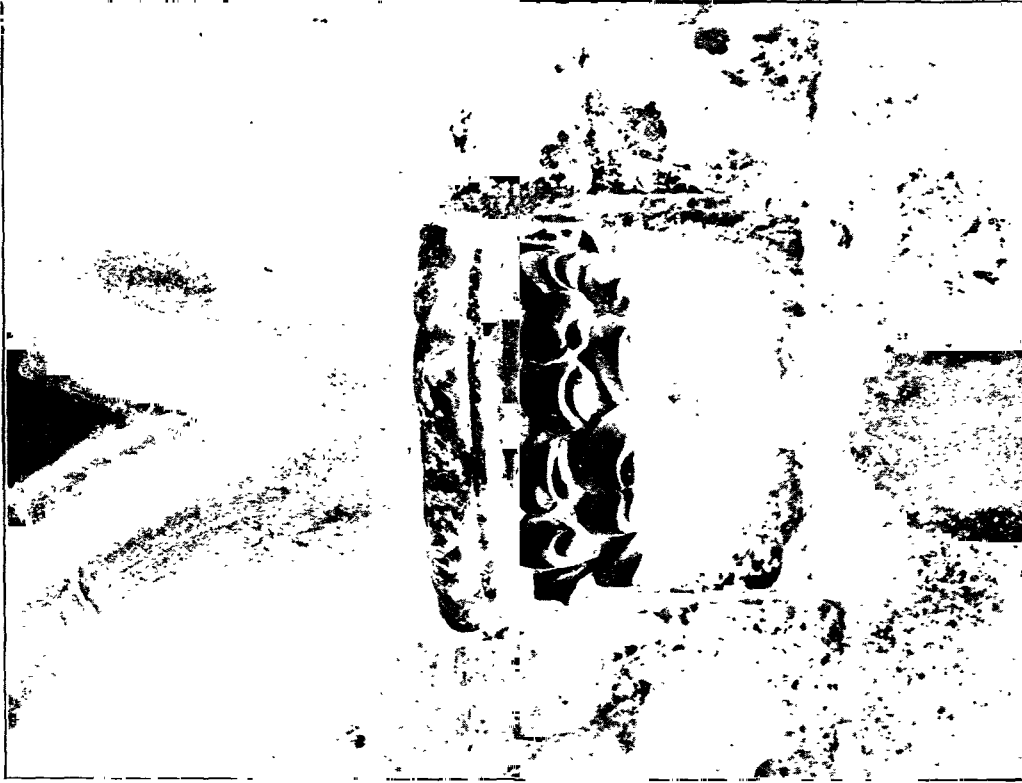


FIG. 3 — MONASTERY CHAPEL — A CAPITAL OF CLOISTER ARCHWAY, RIGHT HAND SIDE BEFORE CLEANING; LEFT HAND SIDE AFTER CLEANING (5 JANUARY 1969)



Before cleaning (20 November 1908).



After cleaning (3 December 1908).

The capital has the appearance of having been reworked, but all that has been done is to remove the softer surface of soil, &c. The stone is light coloured, and must be particularly hard.—G.B.R.

FIG. 4. HOLYROOD CHAPEL: CAPITAL FROM CLOISTER FROM CLOISTER WALL, ARCADE AT SOUTH SIDE OF SOUTH AISLE.

to be found, but they seemed to me to be exceptional accidents, I suppose hardly to be avoided, and there certainly is no trace of any attempt to work over the face of the old stonework. Any mark of the tool represents a mere slip. Naturally these slips are by no means to be ignored, and should be noticed by way of warning; but the blemishes are very slight indeed, while there is no question that the old stonework looks immeasurably better, and at the same time older than it did when messed over by this cement. The piers and pinnacles against the south clerestory wall of the nave, built in rather a soft greenish stone, now show nothing but the old weathered masonry, and are very pleasing to the eye. One of these is shown in fig. 1.

(5) The under-surface of the vaulting in the triforium, south of the nave, is also being freed from a coating of Roman cement which had been smeared irregularly over it, and the mortar is being picked out of the joints in the rubble. These joints are then being repointed, the mortar being kept well back from the face of the small stones of which the vaulting fields are constructed. This of course opens up the old question of how old rubble masonry should be treated. Such masonry, I should think, was in almost every case, especially in interiors, intended to be plastered, and I should be inclined to plaster these vaults, of which the stones are rough and small. This of course could be done at any time. The Roman cement of which I spoke was not a continuous plastering and had no value in itself. It was smeared on in parts (see fig. 2).

(6) The crucial matter is the treatment of the carved caps. There is a range of these in the cloister walk, along the south face of the south aisle wall in a decorative arcade. This carving is covered, and its interstices largely filled in, by a deposit that looks like soot, but is pretty hard, and is explained by the clerk of works as a mixture of soot with lime that has been washed out of the wall above. This deposit is being removed, and I confess I went to look at the work with considerable foreboding.

Everyone familiar with Holyrood will remember this black incrustation, which is something one does not remember easily elsewhere. It is far more than a patina, and really fills in and obscures the old carving and coats the plain surfaces with a skin of substantial thickness. If this could be removed with wooden tools it would be all right, but it is too hard for these (which have been tried) and the chisel and mallet have been employed. I examined carefully the three caps of this arcade in the cloister walk that have been dealt with, and I must say that in the case of two of them I could see no new tool marks on the stone, and the mason employed seemed to have done his work with very great care. In the case of the third, there were some of these incidental scars and scratches, though the same mason had been at work on it. The

stone in the building varies a good deal in character and hardness, and the clerk of works says this makes a difference in the ease or difficulty of getting off the incrustation. The masons to whom I spoke appear quite to recognise the aim they should have in view, and know that no tooling of the old surfaces, now brought freshly to view, is to be for a moment allowed. At the same time, the removal of this hard incrustation from carved work must in the nature of things involve a certain risk, and both Mr. Oldrieve and Mr. Robertson, the clerk of works at Holyrood, a very intelligent and careful gentleman, are alive to this. The character of the work may be judged from figs. 3 and 4. The photographs, by Mr. Frank C. Inglis, have been kindly lent by Mr. Oldrieve for purposes of illustration.

These caps, which are outside the building to the south and not in the part accessible to visitors, are boldly carved. There is much more delicate work on the caps in the arcade on the south side of the north wall of the north aisle, inside the building. These have not been touched, and we considered them with much searching of heart. The west front, again, presents another problem. It is, of course, by far the richest and most valuable part of the whole structure. It is very thickly incrustated with the sooty deposit, and the stone seems particularly soft and friable, for it comes away by itself in small bits, leaving white patches on the black. About this it has been decided to make no attempt at removing the crust, but to spray the whole of the masonry in its present condition with the baryta water, which Professor Church says will penetrate through the crust and consolidate the whole.

I have gone into these details, though at the cost of some prolixity, because it is just the details of the work that are of importance. In connection with the whole matter, I have newly read over the "Advice on Conservation of Ancient Monuments" in the R.I.B.A. *Kalendar*, current issue, p. 430. In one way the present work is more conservative than that contemplated in section 9, p. 432, of the "Advice," for no new stones are being put in, for reasons of appearance, to replace parts of mouldings, drips, &c., that have broken away, or, save for structural reasons, to replace the cement that has been so extensively used, especially in the interior, to make up defects. On the other hand, in getting off the incrustation, the directions on pp. 436 and 437 are not rigidly adhered to, as the tool is used, though, as I have explained, with very commendable care. Personally, I am quite satisfied with the treatment of the masonry in general, but am a little concerned about the carving, in regard to which Mr. Oldrieve is determined to proceed in a very cautious and tentative manner. I think they are quite right about the west front.

G. BALDWIN BROWN II.A.A.

REVIEWS.

THE EPHESIAN TEMPLES.

Excavations at Ephesus. The Archaic Artemisia. By David G. Hogarth. Atlas and text printed by order of the Trustees of the British Museum.

Restoration of the Cræsus (Sixth century B.C.) Structure, by Arthur E. Henderson. Architect to the British Excavations at Ephesus. Paper read at a General Meeting of the Institute 29th November 1906, and printed in the JOURNAL R.I.B.A. No. 3 Vol. XVI Third Series.

During the last thirty years the progress made in the principles to be observed in archaeological research has been so great as virtually to create a new science, which, like others, demands the most serious study and can only be acquired by a long period of probation. In earlier days the explorer was content to follow the track only of the foundation-walls of a building, the traces of which had been lighted upon by cutting trenches, dumping on either side the earth dug out without much consideration for any further researches which might have to be made at a later period. Now, however, this haphazard method is changing and a more systematic research is employed, in which the whole site is mapped out first, and complete records are kept of the precise position of every wall, and of its relation to a standard datum level. These reflections have presented themselves to me when reading the minute descriptions given by Mr. Hogarth of the last excavations made on the site of the Ephesian temples, when great expense and loss of time were incurred in the removal of the vast mounds thrown up by Wood on important portions of the site which required further investigation. All this shows that in 1869 when he commenced his work, though full of energy and enterprise, Wood had never received the preliminary training which was absolutely necessary for a research involving so many difficulties as that of the examination of the site of the Ephesian temples. Wood succeeded in some points, such as the discovery of the real site and in the acquisition of the treasures now in the British Museum, but on his return in 1874, when he had already attempted to draw out the results of his first researches, he found that he had neglected to take note of many important details without which it was impossible to complete his survey. Again, a third time, he went out in 1883, but, in the nine years which had passed, the site had become so filled up with earth and overgrown with vegetation that he was unable to do more than bring away a few important fragments, and no record seems to have been preserved of this his last visit.

In the descriptive text which accompanies the folio volume of plates published by the British Museum, after referring to the early researches of Wood and then to those of the Austrian Archaeological Institute undertaken by Dr. Wilberg, the architect attached to the expedition, Mr. Hogarth proceeds to give in minute detail the result of the

last excavations of 1904-5, in the examination and measurements of which he had the able assistance of Mr. A. E. Henderson.

In the account given the operations have been distinguished into three divisions—(1) the clearance of the Cræsus platform, (2) the excavations beneath that platform, and (3) the explorations in the precinct.

Wood had come to the conclusion that the Cræsus temple was the earliest on the site, but Mr. Hogarth found that what had been considered to be the foundation of a great altar which formed the central feature of both the Cræsus and Hellenistic temples, belonged to more ancient structures, of which he traced three successive examples which are described as A, B, and C. The Cræsus temple thus becomes D, and the Hellenistic temple E. The evidence offered for the reconstruction of the plans of A, B, C, Mr. Hogarth says, is imperfect, and in some points obscure, but he gives evidence which shows that prior to the Cræsus temple there were three periods of construction, and the plan of the remains of each are shown on Plate II. From the various passages in which the temples are described in Classic authors Mr. Hogarth concludes that Temple A was a small tree shrine, which was built probably about 700 B.C. B, the second temple erected round and over A by the architect Theodorus of Samos, about 650 B.C. C, the third temple, was built by Chersiphon about 600 B.C., and completed by his son Metagenes. It was of the Ionic order, being the first erected in that style in Asia. The prolongation of the cella wall in the front and rear, as seen by the foundations on Plate II., shows that it was amphiprostyle with two columns-in-antis. It measured 54 feet wide, being about double that figure in length, so that it was a temple of considerable size, and was apparently built in masonry of such great dimensions that, according to Vitruvius, Bk. X., Chap. 6, a special contrivance was invented by Chersiphon to bring the stones from the quarries to the temple, situated about four and a half miles' distance, and also to raise them to their position in the temple.

The builders of the fourth, the Cræsus Temple D, according to Mr. Hogarth, were Demetrius and Poconius, of Ephesus, who have hitherto been credited with the erection of the Hellenistic temple which he says was built by Deinocrates. But as the Cræsus temple was built in 356 B.C. (the date of the birth of Alexander the Great), and the new temple was commenced at once, all Asia contributing to it, it is scarcely possible that Deinocrates could have been the architect, as he was not called in by Alexander till some twenty-four or twenty-five years later, by which time the Hellenistic temple was probably completed, with the exception of the carving of the columns. Deinocrates may have completed the enclosures of the temple, and in consequence have been credited with the design of the temple itself, an error which is sometimes

committed at the present day. At all events, it seems evident that the discovery of the remains of the Temple C upsets the attribution of the Cræsus temple to Chersiphon given by Vitruvius, whose description, however, Mr. Hogarth points out, resembles more the Hellenistic temple.

About half the text is devoted to the description of the various finds, such as the coins, jewellery, other treasures, and the pottery, the latter treated by Mr. Cecil Smith. In many cases the approximate dates ascribed to the earlier temples have been derived from the objects found and their position in the foundations.

The latter part of the text contains the description of the Cræsus temple, of which the greater portion was included in the Paper read by Mr. Henderson at a meeting of the Institute in 1906, to which reference is made later on. This is followed by a detailed account of all the architectural details of the Cræsus structure and of the sculpture by Mr. Hamilton Smith, and the text volume terminates with a series of fifty-two plates from photographs of the treasures found on the site.

The description given of the excavations is accompanied by a number of illustrations in the text, which are chiefly interesting as proofs of the immense difficulties Mr. Hogarth and Mr. Henderson had to surmount in order to arrive at the conclusions shown on the remarkable plan and the other illustrations published in the "Atlas."

Coming now to Mr. Henderson's conjectured restoration of the Cræsus temple, I am at a loss to understand why he should have based it on Pliny's description of the Hellenic temple with 127 columns, because the subsequent statement "given by various kings" shows that Pliny was referring to the temple built after the destruction of the old temple by Herostratus in 356 B.C. (see page 7 of Mr. Hogarth's description in the British Museum publication). All Asia then contributed to its restoration, and most of the columns were given by various kings, whereas, according to Herodotus, most of the columns of Temple D were given by Cræsus, and no other donor is mentioned. In providing the 127 columns Mr. Henderson includes those of the cella, the first time, I think, that such adjuncts have ever been added to the calculation.

With extreme ingenuity Mr. Henderson has managed to evolve an angle capital notwithstanding the great projection of the volutes on either side, but I am still of opinion that there was no column at the angle but a square pier with responds towards the column at the side and the rim—responds which were copies in stone of the balks of timber employed in early times to support the end of the architrave when the walls were either in crude brick or rubble masonry with clay mortar, as in the temple of Juno at Olympia. The projection of the respond equalled that of the abacus, and the plan of the pier was L-shaped. In elevation the respond

would consist of a narrow pilaster strip of slight projection, similar to those of the Erechtheum at Athens, and the whole pier was crowned with mouldings as in the same building but without the necking.

The principal characteristic of the entablature of the Asiatic Juno temples is the great height and projection given to the dentil course when compared with those in Greece. The dentil course in these Asiatic temples is the reproduction in stone of the square wood joists which carried or formed the ceiling over the peristyle. By its omission in his restoration Mr. Henderson has not provided the independent ceiling over the peristyle which existed in every Greek temple, and moreover has no adequate support for the cima gutter which in the archaic temple was of considerable size. We now come to the peculiar break in his pediment cornice, which no Greek artist could have perpetrated. Mr. Henderson bases this restoration, I believe, on one given in Koldewey and Puchstein to Temple C at Selinus, but at all events Hittorff managed to restore that temple without any such break, and so did M. Hulot in the magnificent drawings exhibited last year in the Royal Water-Colour Society's galleries. Mr. Henderson's reason for this restoration is not very clear; he calls the cymatium gutter the parapet, and states, p. 94: "If this parapet were continued, raking up the pediment, it would have been extremely unsightly from the rear, and, moreover, would have had no reason for its existence. I have therefore made it return at the angles for a short distance until the roof behind rises to its level." In the first place, as restored it is much more unsightly in the main front, and it would have been much better if Mr. Henderson had commenced by fitting his roof to the raking pediment and raised its level about 18 inches. By doing this he would have avoided the unsightly break of the cornice of the main pediment, he would have obtained sufficient depth for the construction of his roof, which he certainly has not got in his section, where it comes almost to a feather edge, and, what is also of the greatest importance, he would have raised the rear portion of his gutter so as to lessen the chance of the water flowing into the roof in the event of a stoppage of some of the lion-headed gargoyles. As shown in his section, a sudden thaw after such a fall of snow as we had a week or two ago would have flooded his roof.

On p. 93 Mr. Henderson speaks of the tiles of the archaic temple as found in the pockets of the foundations of the Hellenistic temple as evidently suited to a low-pitched roof. That description can scarcely be applied to his restoration, where the rise is 18 or 19 degrees in the British Museum publication, and 20 degrees in the frontispiece to his Paper, a rise much more Roman than Greek in its pitch, where the rise in early temples is only 15 degrees. He refers only to terra-cotta fragments of tiles, whereas those shown on Plate XI. of the

British Museum folio are much more like marble tiles, and I have always been under the impression that the roof of the archaic temple consisted of marble tiles, being about the earliest examples of those which were invented by Byzes about 550 B.C.

Whilst regretting that I am unable to agree with Mr. Henderson in his conjectural restoration of the Cræsus temple, I feel that we are under great obligations to him for the assiduity and perseverance he displayed in the measuring of the various temples on the site, and for the pains he took and the labour he expended in the delineation of the plans and sections, where the precise position on plan and the relative height of every stone is clearly shown, and which are now of inestimable value as probably the last which will ever be made.

R. PHENE SPIERS [F].

GREEK ARCHITECTURE.

Greek Buildings represented by Fragments in the British Museum. By W. R. Lethaby. 8vo. Lond. 1908. Price 10s. 6d. net. B. T. Batsford, 94 High Holborn, W.C.2

Artists possessing both the analytical and constructive faculties have always been rare. They have generally been content for their critics to read them in their art creations. Possibly we should have been poorer had Wren or Turner bequeathed literary works. We are the more thankful therefore to Professor Lethaby, whose artistic power and draughtsmanship, accuracy and originality of thought, as well as his building experience, are so well known, for such a work as we have before us. Too often, moreover, literary artists are narrow in their range of sympathies: it is the more refreshing, then, to find the author of "Westminster Abbey" issuing a work on "Greek Buildings."

Grecian architecture records one of the rare high tides of human artistic attainment, and is as necessary to an architect's education as Grecian literature is to the poet and philosopher. But we live in an age of science. As history must stand the test of confirmation or rejection by ascertainable fact, so also the theories as to the actual form of ancient monuments must be brought to the searchlight of archaeological exhumation.

Professor Lethaby reminds us in his preface that in the British Museum we possess the original lithic records of nearly all the greatest Greek buildings. "Certainly" he says, "in no other place than a few Greek sites is there so much material available for such study as in London, and the buildings dealt with include the best-known monuments of Greek art . . . Of these the Temple of Diana and the Mausoleum can only be studied in the Museum, which contains practically all the wrought stones of them which have ever been discovered."

The author ends his work with a remark we prefer to make a preface. "My study," he says, "of the old has had for its object the discovery of the conditions of the new." His book is not merely a dis-

criminating review of the best that has been written on these renowned monuments, but is a work which every student of architecture, whether professional or lay, will rise from reading with a clearer grasp of Greek architecture, a greater admiration of Greek architects, and a sincere gratitude to the author. That such a work was urgently needed by students we, who have had laboriously to thread the labyrinth of museum marbles unaided, can feelingly testify, and we heartily congratulate students on this further guide to knowledge. A week devoted to the British Museum in studying Greek buildings as described within these pages would be well spent. Professor Lethaby's own beautiful sketches of the sculptures add that delightful interest which architectural works generally lack, and there are ample further plates from the best available sources, all admirably chosen to illumine the text.

The first three chapters are devoted to Diana's Temple at Ephesus, the Tomb of Mausolus, and the Parthenon and its Sculptures; and the last section to "Other Works." A good index is added. Much space is devoted to the latest or great Ephesian temple, and this appears to have been written before the result of Mr. Hogarth's investigations of the site were published in the British Museum book on the *Excavations at Ephesus*. Particularly interesting to the practical architect is the fact here emphasised that intentional variation of parts, particularly in the older Greek buildings, is almost as marked as in mediæval work. After a careful consideration of various theories, Professor Lethaby gives his reasons for considering Adler's beautiful restoration of the tomb of Mausolus the nearest to the truth, and he reproduces a fine view of it.

The Parthenon naturally claims a large share of space. The author sums up much that is most immediately useful and interesting in Penrose's great work and other authorities, and a most fascinating chapter it is to the mason as well as to the architect, the sculptor, and the decorator. We advise the R.I.B.A. examinees to read, mark, learn, and inwardly digest this chapter. The hypæthral heresy is dismissed with a quotation from Wilkins that "no provision was made, or contemplated, for the admission of light otherwise than by the door or by artificial light." The refinements in design and constructive irregularities observable everywhere are described and the reasons given.

Professor Lethaby gives us glimpses of the political economy of art under Pericles, who, in answer to the public objection as to the cost of such monuments, says that superfluous wealth was best expended on work which would be the eternal glory of the city. During their execution every art would be exercised and every hand employed. Neither labourers, mechanics, nor common people would be supported in idleness. The interesting fact is recorded that it was customary in Greece to appoint a commission or board for carrying on public works, and that architects were members of such boards.

As regards the use of colour and bronze ornament, the author says that "Not only the reliefs but the great sculptures were finished with colour and additions of gilt bronze . . . The general tradition, down to the Renaissance, was to colour all sculptures." Professor Lethaby's beautifully illustrated description of the sculptures of the Parthenon forms one of the most delightful passages of the book. Fragments of the main pediment are restored by sketches until we seem to have an intelligent view of it as it issued from the sculptor's hands.

The old question as to how Phidias could possibly have executed some 50 pedimental figures, 92 metopes, and 524 feet of frieze is answered by the remark that Phidias was master of a school. "A few words, a few sketches, and the great traditional technique would soon settle all but a dozen or so of the metopes; but in all essentials the design is his own."

In an appendix on the method of setting out the volute, Professor Lethaby suggests that the Greek plan was to draw four intersecting lines on the eye of the volute, then to sketch on it a rough spiral according to the number of revolutions required, and centres for the successive arcs of circles were formed at the intersection of the small and rude spiral with the eight radii.

The appendix on "Architects and Antiquity" goes more into detail on the training and function of the architect, stating that the more ancient and the great classical architects were primarily sculptors. Later on in Greece they were engineers. In spite of their artistic and literary culture Aristotle would not allow that architecture was a fine art: it was too much subject to mere need to come within his definition.

In his closing sentences, the author says:—

"It is a commonplace that the arch and vault were not recognised in Greek architecture. Yet these menial coverings of drains and stores were to become the master forces of a new architecture."

"It is the same whatever 'features' we examine. That which is now 'aesthetic architecture' was once organic building. How long do past and cast-off needs remain in consciousness as taste? . . . The normal course of architectural development has been through need, local possibilities, experiment—that is the period of infancy: to custom, mastery, expansion, and maturity, into rules, and then intentional variations, redundancy, æstheticism, incoherence, and decline."

"While Greek 'sanctioned architecture,' the ideal of Vitruvius, was declining, the Roman building art arose. Later architecture was again and again renewed in Byzantine, Romanesque, and medieval *building adventure*, as in modern days it is being renewed outside the realm of 'taste' by fresh needs and engineering experiment—the basis of the architecture of to-morrow."

W. H. SETH-SMITH F.R.S.

THE ARCHITECTURE OF EARLY CISTERCIAN BUILDINGS.

*An Architectural Description of Kirkstall Abbey, by W. H. St. John Hope, M.A., and John Bilson, F.R.S.A. The Cistercian Society, Leeds, 1907; bound Vol. XVI of the *Archæologia* series.*

The appearance of this volume will be welcomed by all serious students of ecclesiology. Issued in an unpretentious form by the Thoresby Society (of Leeds), its contents, both in form and substance, will be found to furnish a contribution of singular value and importance to our national records of architectural history. Within its covers are two separate essays, one by Mr. St. John Hope, dealing with the plan, structure, and architectural scheme of Kirkstall Abbey; the other by Mr. John Bilson, treating of the building as an example of the general Cistercian system of plan and arrangement, and reviewing its features, point by point, in comparison with other typical specimens of the early buildings of this Order, both in England and in Burgundy, whence the Cistercian system originated.

This union of antiquary and architect is not only valuable for the result here achieved; it is also significant of greater possibilities for the future of the sister sciences, and certainly furnishes an object-lesson of the value of the mutual assistance to be derived from the mingling of the two activities. Archaeology is the lamp of history, and its beams illumine obscure problems in the architectural relics of a great past. Similarly, in the light of a perfected knowledge of architectural detail, facts of profound significance emerge from the twilight of antiquity. The time has passed when we could regard any school of architecture as being self-originated, and it is no longer possible that we should remain content with a limited outlook which would study different schools without co-ordinating them and determining the streams of influence which have united to produce them. The fine lines of organic form are built upon a skeleton whose type is the product of a long evolution. Even so the peculiar features of the schools of architecture which are the subject of this work are largely the outcome of constructive methods, gradually evolved and specialised.

Kirkstall Abbey is a sombre, and to the ordinary eye a somewhat forbidding, pile, its architecture characterised by a grim simplicity, almost harsh in its denial of the elegancies of detail met with in other works of the period. Its situation within the smoky purlieus of Leeds adds to the sombreness of the effect. But, viewed through the glasses of the ecclesiologist, it is a pearl of price, for it offers an unspoilt and wonderfully complete example of a typical Cistercian church of early date, retaining those features of plan and arrangement which have had so marked an influence upon the determination of types of church building in this country as well as in North-West Europe.

The origins of our English Cistercian types are

well shown in Mr. Bilson's masterly Paper. The period of critical interest in our mediæval architecture is the end of the twelfth century—that which by common consent our writers term the "transitional" period. England and Normandy, from the time of the Conquest, were architecturally one province, well advanced in a special mode of design. The ribbed vault, used in England in the last decade of the eleventh century, was followed by the introduction of the pointed arch, but the former was really of Anglo-Norman origin, and was developed here at a date earlier than the rise of the Burgundian system of ribbed vaulting which the Cistercians, who have been spoken of as "the missionaries of French art into Germany," introduced into that country and into Italy.

Structurally, Mr. Bilson says, the chief contribution of the Cistercians to English architecture was the introduction of the systematic use of the pointed arch. Before their advent it was only an occasional feature, the best known example being that of the transverse ribs of the nave vault of Durham (1128–1133).

The vaults of the presbytery and nave aisles at Kirkstall are still standing, and are among the very earliest examples in England of the *complete* solution of the Gothic problem of vaulting. The interesting question arises: What precise influences brought about this development? Was it borrowed from the Cistercians of Burgundy, or from the Ile-de-France, whose marvellous advance in architecture had already commenced before Kirkstall was begun? The Kirkstall vaults have cells of plastered rubble, like the earlier vaults, and are in contrast to the coursed masonry of those in the Ile-de-France, whilst the profiles of the rib-moulds are Anglo-Norman. It is probable therefore that they were a product of the native school, modified by the Cistercian use of the pointed arch.

The detail and general expression of this building are Anglo-Norman without the richness of ornament characterising the Romanesque. This is repressed by the Cistercian severity of rule. But the constructive development is essentially Gothic. Nowhere in England had the Cistercian reform a greater measure of success than in Yorkshire. Its influence permeated architecture with that simplicity and restraint which was the essential spirit of Cistercian building. To this influence is due the purity of design which characterises the eastern parts of Fountains, Rievaulx, and Beverley.

Mr. Bilson includes a monograph of great value on the plans of Cistercian churches, and shows the strictly practical nature of every feature. A sanctuary for the High Altar, a quire for the monks, another to the westward for the *conversi* or lay brethren (who, in this Order, were the social equals of the priest monks), and a sufficient number of chapels for all the priests to celebrate Mass—these and minor requirements determined the plan of a Cistercian church.

A large chart of comparative plans is included at the end of the volume (fig. 96), in which the character of typical examples in England and France is contrasted, and the differences discovered are entered into at some length in the text. The development of plan and architecture in the houses of this Order down to the end of the thirteenth century is traced in a most interesting manner, the examples given showing that the first uniformity of plan, so strikingly expressive of unity of observance inculcated by the founders of the Order, gave way ultimately to a conformity with the architectural standards of the time.

For Mr. Hope's contribution we have equal commendation. It is a complete, lucid, and methodical description of the Abbey, from which, with the aid of the numerous photographs and measured drawings with which this book abounds, the experienced reader may readily construct for himself a solid mental image of the Abbey church and monastic building. This section also presents a concise history of the foundation of the house; and in the course of the description of the structure of the church, the uses of the various parts are fully explained, with reference to the Cistercian rules. As an example of the value of these descriptions we may instance that of the arrangement of the quire. By a minute and painstaking study of the fragments yet existing in the piers and floor of the nave, coupled with collateral indications furnished by the enlargement of windows at a certain place in the aisle walls, and the evidence of ancient documents, Mr. Hope is able to show that the real nature of the early Cistercian quire-enclosure was a much more complex thing than has been hitherto supposed.

In the first two bays of the nave was the quire of the monks, and at its western extremity the stone screen or pulpitum, about twelve feet west of which was the rood screen, the bay thus enclosed forming a retro-quire (*retrochorus*) for infirm monks or those who had recently been bled. Westward again of this enclosure was a platform with altars against the rood screen, and the four remaining bays of the nave formed the quire of the lay brothers.

The whole volume is copiously illustrated with measured drawings and photographs. The former are peculiarly valuable, and we note with satisfaction that an excellent series of general elevations and sections have been reproduced in reduced form from Sharpe's *Parallels of Gothic Architecture*. The photographs may serve their purpose as diagrams, but technically they are not good, being, with few exceptions, very inferior as specimens of half-tone work, and printed on a paper quite unsuitable for the purpose. Some (as figs. 27 and 28) are so blurred as to be almost valueless. Is there no variety of paper to be found which will unite a quality sufficiently absorbent to give a brilliant half-tone picture, with the toughness or

elasticity of fibre needful to ensure permanence? The problem presses for solution. Here apparently the choice has been made in favour of durability, but at the expense of quality. The plates are ruined by their mealy and mottled texture and the lack of force and value in the shadows, in which, too, no detail is usually visible. This is the more to be regretted in view of the value of the text as a permanent contribution to our architectural records.

There is a large general plan of the church and monastic buildings supplied with the volume. This shows, in lithographed colours, all the different dates of the work. It is one of the best we have seen.

FREDK. BLIGH BOND [F.].

PORTLAND CEMENT.

The Everyday Uses of Portland Cement. Authors and publishers, The Associated Portland Cement Manuf. Ltd. 1909. 80s. 156 pp., 2s. 6d. net.

Although no book upon the merits of a material published by manufacturers of such material can be entirely free from a certain element of trade advertisement, this volume contains a great deal of valuable information presented in a palatable form.

At the present time when concrete buildings are coming so much under public notice it is particularly desirable that the uses and methods of employing cement should be summarized, and that all those responsible for the supervision of this material should be kept in touch with the new possibilities which it presents in construction.

A short introductory chapter concludes with a warning against the use of natural and of imported cements. All natural cements are inferior to those of artificial origin: they usually contain a considerable excess of alumina and iron, and hence their rapidity of setting has to be reduced by undue additions of gypsum. The statements here made are, however, somewhat sweeping; many excellent natural cements are in use in America, where they largely take the place of the better hydraulic limes used in this country. Again, all foreign cements are not bad, and the circulation of reputable foreign brand marks by some independent authority such as the Board of Trade or the Chamber of Commerce, would be of great benefit to users. It is undoubtedly true that much cement is imported under very misleading descriptions beneath the shelter of such unfortunate names as "Natural Portland," and if this has not been done, it would seem to be worth the while of reputable makers to get up a test case and procure a legal definition of Portland Cement.

The introductory chapter is followed by a useful ten-page description of aggregates. The quality of an aggregate is quite as important as the cement which binds it, and as much is yet to be learnt upon this subject the collected information here given will prove valuable.

Pages 20-39 deal with the proportion and mixing of concrete materials, and include some data in tabular form as to quantities for different purposes and in relation to the determination of voids. In large works the importance of preliminary investigations on suitable proportions can hardly be overestimated, and it undoubtedly often happens that much cement is wasted through insufficient care in grading.

For the execution of work in frosty weather the addition of 1 per cent. of salt to the water used for gauging, for each degree F. below the freezing point, is recommended. Salt, like other electrolytes, acts as an accelerator in the setting of cements, and the amounts which might be added under this recommendation would, at times, be very considerable. Salt, moreover, as a commercial substance, contains magnesium chloride which is deliquescent. These facts, which are not referred to, seem to merit some consideration. The theory that setting is due to crystallisation seems to be tacitly adopted by all writers in this country, but other views, which it would be out of place to attempt to discuss here, are held, and until some consensus of opinion is forthcoming, it is impossible to predict the ultimate effect of frost and the stage at which it should render special measures or cessation of work necessary. In the carrying out of contracts vital matters might well turn upon this important question.

After the above discussions six pages of general data are followed by a chapter on workmanship, wherein the construction of false work and the use of different tools are set forth. The succeeding chapter (p. 69-86) deals with Reinforced Concrete, and these pages are to be particularly commended since they contain a concise account of general principles without reference to special systems. Some useful and simple data for calculating the dimensions for posts and beams are here given, and these the architect who is excluded by temporal or mathematical limitations from the study of special treatises, should find of service.

Finally, the various possible uses of cement are described in two profusely illustrated chapters, uses which cover a range from drinking troughs to concrete barges and imitation trees. Among these new marvels the writer must confess to having sighed for an ordinary gravel path after picturing his progress up the flight of steps illustrated in fig. 75.

Neatly bound in buckram and paper boards and well printed on good paper, the book is certainly one to be recommended both for its style and contents.

ALEX. E. MUNBY [A.].



9 CONDUIT STREET, LONDON, W., 20th March 1909.

CHRONICLE.

Architecture and Material Problems.

Mr. Swales's Paper on American Architecture and his interesting commentary on the numerous illustrations thrown on the screen occupied the whole of the evening meeting on Monday, and left no time for the usual discussion. The Paper, as in the case of Mr. Lanchester's on Town Planning, attracted notice in the daily press, and an excellent summary of it was given in Tuesday's *Times*. The Paper suggested also the admirable article headed "Architecture and Material Problems," which appeared in *The Times* of Thursday. It is rare to find outside the professional press such enlightened views on the subject of architecture as are given expression to by *The Times* writer, and as the article will doubtless influence the views of the public, it will be of interest to members to reprint it in their own JOURNAL. After a complimentary remark on Mr. Swales's Paper the article proceeds:—

Mr. Swales is of opinion that the prospects of the art in America are very promising, and he is not alone in that view. Most English visitors to the United States are struck by the originality and even beauty of many of the newer buildings there and by the interest which is taken by the general public in architecture. In that respect American architects have a great advantage over English. We are apt to think that we have done our duty by the art when we have grumbled a little at any new building large and prominent enough to alter the appearance of a London street. We do not consider the difficulty of the material problems with which the modern architect has to contend; nor are we ready, either individually or as a nation, to make those sacrifices which must be made if architecture is to be more of an art than engineering. We do not understand that there cannot be cheap architecture, that a building only becomes architecture through a superfluity of energy which, having solved its material problem, proceeds to express some idea through that solution. Mr. Swales said that architecture had been defined as the mirror of a people's needs, aspirations, and enlightenment. We are content for the most part if our buildings express our needs. We will not spend enough money on them to make them expressive of our aspirations.

This may seem to be a poor way of putting the matter. But it is certain that no architect, whatever his genius, can produce a fine building if he is only allowed just so much labour and material as will enable him to solve his material problem, if he is forced to use the cheapest of everything. The ugliness of many of our modern buildings is the result not of any want of talent in the architects, but of parsimony in their employer, and when the employer demands a great show at a little expense the result is a vulgarity for which he alone is responsible. There appears to be less of this parsimony in the States than in England. Architects have more opportunities there, and they are learning to make use of them.

Yet in England also there is a real revival in architecture and a real desire for buildings that shall express something more than our material needs. But this revival will end in nothing unless our desire for beautiful buildings becomes strong enough to make us ready to pay for them. We are too apt to think that art of all kinds is produced only by artists. There is no art that does not depend to some extent upon public encouragement; but architecture depends upon it most of all. It costs little to write and publish an epic, but it costs a great deal to make a fine building, and that cost must be borne not by the artist, but by his employers. Never, probably, in the world's history was there so much building as there is now; but most of it cannot be architecture because of the conditions imposed upon the architects. Architecture, of course, must always solve its material problems. It has that in common with engineering; but engineering is not architecture even when it is tricked out with borrowed architectural ornaments. Too much of our modern architecture is merely ornamental engineering; and often, as in the case of the Tower Bridge, we cannot but wish it had been left plain, for the incongruous ornament only hides the power and, as it were, the unconscious beauty of the engineering. Ornament in architecture is a means of expression, and it is irrelevant if the building to which it is applied expresses nothing in its structure and is only a solution of a material problem.

We may be sure, therefore, that we shall never develop a great architecture through the solution of purely material problems. We may build shops or hotels of Babylonian immensity with every modern convenience; but, however richly they may be ornamented, they will remain merely decorated pieces of engineering. The great architecture of the world has solved material problems, but its main purpose has not been to solve them. In Greek temples and Gothic cathedrals the material problem was subordinate to the purpose of expressing great emotions and ideas. A noble style is developed in the expression of these emotions and ideas, and it communicates some of its beauty even to the humbler buildings of utility that are influenced by it. But beauty, whether of structure or of ornament, does not originate in them, but in buildings whose main purpose is expression, just as beauty of language is developed in poetry and eloquent prose, not in the prose of mere utility. We cannot, therefore, expect a new and beautiful style of architecture to be developed in buildings of pure utility, however lavishly they may be decorated. They may get some beauty from the borrowed ornaments of past architecture; but that beauty must be irrelevant to their main purpose, since, if it

expresses anything, it will express something that has nothing to do with that purpose. This may sound discouraging; but we do not intend discouragement. Least of all do we mean to imply that architects should give up the effort to make buildings of pure utility, beautiful with ornament or by any means in their power. We believe that the instinct of architectural expression is reviving among us, and that it must be strengthened by all possible means of exercise and training. Architects must do what they can with things as they are, if they are to prepare their art for a great future. But that future will only come when we learn to express our nobler emotions and ideas in buildings, as we express them in other forms of art. Great architecture is rare, because communities have not often the generosity and faith and common feeling necessary to the expression of great things through communal effort. A Gothic cathedral expressed the faith, not of one man, but of a whole people. The question is whether we, as a community, have some great common idea or emotion which we can learn to express in some great form of building. If we have, we shall in time produce a great architecture. If we have not, we shall fail to do so, and shall prove ourselves finally to be inferior, in some of the essentials of civilisation, to the Greeks and to our own medieval ancestors.

The Nave of Westminster.

At a meeting of the British Academy, held last Wednesday, the Dean of Westminster, Fellow of the Academy, communicated a Paper, written by the Rev. R. B. Rackham, on "The Building of the Nave of Westminster."

The Paper was based on investigations of the Westminster Fabric Rolls, and stated that the nave of Westminster was one hundred and fifty years in building. The money for it came from certain of the revenues of the monastery which were assigned to the *novum opus*, and were administered by a warden who was responsible for the building. These revenues came from Longdon in Worcestershire, some houses in King Street and Tothill Street, Westminster, from the manors of Hyde and Paddington, and later, from lands in Westbourne and Kensington. But further help was needed, and it is historically interesting to trace the share in the work taken by kings and abbots. Its origin was due to Cardinal Simon Langham, who had been abbot of Westminster; and, fortified by his pecuniary help, Nicholas Litlington laid the first stone of the new nave on March 3, 1376. Richard II. helped the work in the last ten years of his reign, when the marble pillars were set up. Under Henry IV. the work ceased altogether. Henry V. atoned for this by making himself responsible for it. He gave 1,000 marks a year, and one of his commissioners was the famous Dick Whityngton. In this reign the triforium was completed, the side aisles roofed, and the clerestory walls well advanced. Unfortunately Henry V. died after nine years, and Henry VI. did nothing for the Abbey.

The work languished until 1467, when Abbot George Norwiche was deposed by a revolution in

the convent, and the next year Thomas Milling took up the work with ten wed vigour. He roofed one bay, and his work was carried on to its completion by the abbots who succeeded him, and who appointed themselves wardens. Milling became abbot in 1469, and when Edward IV.'s Queen died to Westminster to take sanctuary in 1470, Milling received her hospitably, and stood godfather to the young prince, Edward V., who was born in his house. Consequently, after Edward IV.'s return he with the Queen and Prince gave grants to the work, amounting in all to £580; and soon after Milling was made Bishop of Hereford (1474). John Esteney, who had been warden since 1471, succeeded him as abbot, and in his long wardenship of twenty-six years he roofed the nave, vaulted five bays of the nave and the side aisles, and finished the great west window. In fact, Esteney practically completed the fabric, and of all the builders (except perhaps Henry V.) most deserves our gratitude.

His successor, George Fasset (1498-1500), gave £600 to the work, which was finished by the last great abbot, John Islip (1500-1532). He finished off what Esteney had left undone in the vaulting and at the western gable end. Then he glazed the windows in 1507-10, paved the floor (1510-17), and put up some stone screens under the towers which have now disappeared. We may date the completion of the work in 1528. Islip enjoyed the confidence of Henry VII., who had done nothing for the abbey in Esteney's time, but after Islip had become abbot began to build the great Lady Chapel which bears his name, and the abbot put Henry's badges upon his new vaulting. Islip also rebuilt the chancel of St. Margaret's, and he was at work upon the western towers when he died in 1532. His death was practically the end both of the new work and of the convent itself. The last fabric roll dates from 1533-34, and almost the last piece of work was the preparation of the church and sanctuary for the coronation of Queen Anne Boleyn on Whit Sunday 1533.

Exhibition of Christian Art, Dusseldorf, 1909.

By direction of the Council is printed below for the information of members the prospectus of the Exhibition of Christian Art to be held at Dusseldorf this year, under the patronage of his Imperial and Royal Highness the Crown Prince of the German Empire and of Prussia:—

REGULATIONS FOR ADMISSION

Object of the Exhibition.

- § 1. The Exhibition of Christian Art comprises:
 1. A retrospective department;
 2. An exhibition of contemporary works of an ecclesiastical and Christian character;
 3. A department of ecclesiastical architecture;
 4. A department for reproduction.

Place and Time.

- § 2. The Exhibition will take place at the Municipal Fine Art Palace in the Kaiser-Wilhelm-Strasse from 15th May till 3rd October 1909, inclusive.

Organisers and Managers.

§ 3. The Exhibition is organised by the "Committee of the Exhibition of Christian Art, Düsseldorf 1909," a registered society, and managed by the Fine Art Committee undersigned.

Admission.

§ 4. Works of a Christian character in the spheres of painting, sculpture, metal, engraving, architecture, in the arts of drawing and reproduction as well as of applied art, when these latter show invention and execution the stamp of an original work of art, are admitted for exhibition. All works will be submitted to examination before reception.

A special agreement must be entered into with the Fine Art Committee as to the exhibition of cartoons and paintings on glass.

The name of the manufacturer who carries out the work may be mentioned, with works of applied art beside that of the artist who designs it.

Anonymous works and copies are not admitted.

Paintings, drawings, &c., are to be sent in framed.

Every artist may exhibit not more than three works of every description: cyclical representations are taken as one work.

The works both of German and of foreign artists are admitted, but those of the latter only after arrangement with the Fine Art Committee.

Reception and Arrangement.

§ 5. The works of art sent in are submitted in Düsseldorf to a jury selected by the Fine Art Committee, and are hung or put up by a special Commission, so far as the selection of works is not effected by confidential representatives appointed by the Fine Art Committee in other places, or associations of artists have not been conceded the right of collective exhibition with their own juries and hanging committees. Should any confidential representative not undertake the arranging and hanging, or should any association not send a delegate for those purposes, then such works when sent in shall also be put up by the arranging and hanging commission of the Fine Art Committee.

No objections to the decisions of the confidential representatives will be entertained.

Besides the quality of the work of art, the question of the space at disposal is also decisive for the reception jury.

Exhibition Room and Accommodation.

§ 6. The entire plan and construction of the interior buildings in the municipal Fine Art Palace, as well as the allotment of the space, are made by the Fine Art Committee. The Committee will make all the rooms uniformly available for the purposes required. Large architectural interiors or annexes are to be erected at the cost of the exhibitor after agreement with the Fine Art Committee. The pedestals required for putting up works of art are supplied by the Committee: any others than those so supplied can only be employed at the expense of the exhibitor after agreement with the Committee.

Application and Sending in.

§ 7. Forms of application respecting works selected by a confidential representative are to be sent in to him: on the other hand, the applications of artists exhibiting collectively, to whom their own jury and hanging commission has been conceded, are to be sent in to the directors of the artists' association concerned. All applications from other artists are to be sent in direct to the "Geschäftsstelle der Ausstellung im christliche Kunst, Düsseldorf, 1909."

The applications are to be sent in two duplicate copies, adequately filled up with applicant's statements, by 10th March 1909, and the works of art themselves during the period between 22nd March and 10th April 1909.

§ 8. It is indispensable for all works of exhibition that

the slips delivered together with the forms of application should be filled up in exact accordance with the instructions on the slips themselves and fastened on to the work of art. The printed form or address also given with the form of applications is to be accurately filled up and attached to the lid of the case.

Insurance and Liability.

§ 9. The Fine Art Committee insures the works of art sent in for exhibition against damage by fire from the moment of arrival in the municipal Fine Art Palace until the moment of leaving the same.

The insurance value of a work of art exhibited may not exceed its selling price.

No liability is accepted for damage or loss of any other description.

Packing.

§ 10. Works of art despatched from other places are to be packed singly, each one by itself, in strong cases in the closing of which only screws may be employed.

With works under glass, which are to be suitably packed in wool-wool according to their size, cloths to be employed for fixing over the glass during transport on account of its being easier to detach.

Transmission.

§ 11. Persons sending in works have not to bear the cost of transport themselves: the Fine Art Committee, moreover, undertakes the cost of returning works exhibited and remaining unsold to the senders at the place of original despatch.

To entitle them to free return it is indispensable that the works when first dispatched be marked "Ausstellungsgut" (Articles for Exhibition) and be shipped or forwarded separately on a bill of lading or freight-note alone and not with any other goods, as the original bills of lading or freight-notes are required as vouchers for the free return. After the close of the Exhibition the Fine Art Committee will expedite the return of the goods to the best of its ability, but cannot be made responsible for their despatch within any particular time.

Works of art of unusual weight and dimensions can only be sent in after previous arrangement with the Fine Art Committee.

No reimbursement is made for charges following the goods, for cases, packing, insurance, or other expenses.

Any insurance during the transmission is a matter for the exhibitor.

§ 12. The unpacking and repacking of the works of art are done in the presence of the officials appointed by the Fine Art Committee for the purpose who will draw up a report as to any damage that may occur to the articles, such report to be binding on the exhibitor.

Catalogue.

§ 13. An illustrated catalogue of the works of art will appear, for this purpose it is desirable to forward reproductions of the works sent in for exhibition. No responsibility, however, can be accepted to keep in view and to return all such copies sent in.

Drawings and photographs intended for the illustrated catalogue are to be sent in to the Exhibition Office by the 15th April 1909.

With the application for exhibition of the work of art in question, the artist confers also the permission to reproduce it for the catalogue, but only for that purpose. Should this reproduction be objected to, an express declaration to that effect is necessary.

In case of discrepancies between the particulars given in the form of application and those sent in with the work itself, the contents of the form of application are to be decisive. No sort of responsibility is taken for errors or omissions in the catalogue.

D. Distinctions.

§ 14. It is proposed to award distinctions for pre-eminent performances.

Such distinctions will be awarded by a prize jury, the composition of which will be afterwards determined upon.

The members of the prize jury are excluded from the competition.

Sale.

§ 15. Sales can only be concluded through the business department of the Exhibition.

A fee of 10% will be deducted from the selling price on all sales effected: in the case of objects of applied art 20% will be deducted.

The same fees will be charged upon all orders and repeat orders negotiated through the Exhibition Office. Should works for sale be declared as no longer for sale during the existence of the Exhibition, the exhibitor has then to pay the selling fees at the Office. The regulation respecting the selling fees of 10 or 20% is applicable to all objects of art marked for sale and in the Fine Art Palace from the period of their delivery there.

After the completion of the catalogue the prices fixed cannot be raised.

Copy.

§ 16. It is not permitted to make any sort of copy of objects in the Exhibition.

General Regulations.

§ 17. No work of art may be withdrawn before the close of the Exhibition.

§ 18. The Fine Art Committee accepts no responsibility for any works of art which have not been fetched away at latest three weeks after the close of the Exhibition and as to which no arrangements have been made up till that time.

§ 19. Any complaints or appeals, of whatever nature they may be, must be handed in to the Fine Art Committee at latest two months after the close of the Exhibition.

§ 20. The Fine Art Committee reserves to itself the right of allowing deputations from the foregoing regulations in special cases.

§ 21. By the act of sending in to the Exhibition, the exhibitor signifies his agreement with the whole of the foregoing rules and regulations.

§ 22. All communications are to be addressed to the office of the

"Ausstellung für christliche Kunst, Düsseldorf, 1909."

The Committee of the Exhibition is constituted as follows:—

Chairman. Professor Dr. H. Board.

Deputy Chairman. Count Alfred von Bruhl, Artist.

Advisors, Councillors of Provincial Administration: Dr. Becker, K. C. Town Councillor; Paul Beumers, Court Jeweller; Josef Beyerhagen, Solicitor; Professor Dr. Bone; Rev. R. Brückhardt; Professor Clemens Buscher, Sculptor; Professor Dr. Paul Clemen, Bonn University, Provincial Curator of the Rhine Province; Dr. Doncken, Director of Kaiser Wilhelm Museum at Crefeld; Wilhelm Döringer, Artist; Bruno Ench, Artist; Rev. Heinrich Esser; Louis Erdmann, Artist; Dr. Friedrich, Bank Manager; Professor Ed. von Gebhardt, Royal Academy of Fine Art; Wilhelm Gotschenberg; Rev. Johannes Hinsenkamp, Ronsdorf; Professor Jos. Kleebsattel, Architect; Professor Heinrich Lammstein, Royal Fine Art Academy; A. Ludorf, Royal and Provincial Surveyor; Count Paul von Mevoldt, Artist; Professor Claus Meyer, Royal Academy of Fine Art; Royal Surveyor Meyer, Soest; Carl Moritz, Government Architect retired; Professor Geo. Oeder; Wilhelm Pretter, Banker and Councillor of Commerce; C. Rudolf Poensgen, Chairman of Chamber of Commerce; Wilhelm Putz, K. C. Notary; Dr. Edmund Renard, Registrar of Rhenish monumental records, Bonn; Rev. Emile Rose; Ernest Schieles, Privy Councillor of Commerce; Dr. Max Schmid, Professor at the Technical High School Aix-la-Chapelle; Dr.

Schwenzer, Director of the Town Museum, Aix-la-Chapelle; A. Stehle, Editor; Carl Strauven, Judge of District Court (retired); Max Finkaus, Banker; R. Westphal, Editor-in-Chief; Director G. Woldemayer, Town Councillor.

The New Post Office Buildings and Reinforced Concrete.

In the House of Commons on 10th March Mr. H. C. Lea asked the First Commissioner of Works whether he was aware that in the new Post Office buildings in the City of London being built in ferro-concrete by Messrs. Holloway Brothers only one coat of Portland cement facing was being applied, and whether he was satisfied that this was sufficient to finish the exterior rough surfaces of the ferro-concrete, especially in running mouldings, as it was not recognised by architects and the plastering trade, two coats always having been considered the minimum. He also inquired if one coat was in the specification of the architect to the new Post Office buildings.—Mr. Lewis Harcourt replied that the work was being done in accordance with specification, and was considered by his architects to be the most satisfactory treatment on concrete.—Mr. Lea asked if Mr. Harcourt was aware that owing to the way this work was done it was impossible to get satisfactory results, and men were being "sacked" by Messrs. Holloway Brothers wholesale.—Mr. Harcourt replied that this was contrary to his information. He had previously received deputations on the matter, and would now be pleased to receive any information given him in writing.

The Action of Sea-water on Cement.

In the Newcastle section of the Society of Chemical Industry a paper was recently read by Mr. Charles J. Potter on "Chemical Changes in Portland Cement Concrete and the Action of Sea-water thereon." The author was led to investigate the reasons for the changes effected in some concrete by the action of sea-water, and he ascertained, as other experimenters have done, that the injury was due to the magnesium salts found in the water. By means of practical tests he discovered that the magnesium sulphate was the most active cause of the trouble—the feebly combined lime and alumina in the cement become decomposed, forming calcium sulphate and alumina compounds, which on taking up water on crystallisation effect the bursting of the concrete. To counteract this action, after trial of various materials, it was found that burnt red brick clay ground with the cement when mixing gave the best results. A series of tests made of ten parts of cement and six parts of red calcined clay were given in the form of graphic diagrams. In these the beneficial influence of the brick clay was very marked, and is said to be due to the fact that the percentage of lime is lowered by the clay admixture. Another set of experiments indicate the hardening action of carbon dioxide on cement concrete, and it is shown that the effect of

the carbonic acid is to replace the water and to bring about a high degree of induration. These latter tests arose out of some observations on the floor of a malt-kiln.

Reinforced Concrete.

The March number of *Concrete and Constructional Engineering*, the first of a new volume, fully sustains the reputation this journal has won for itself. The new buildings of the Selfridge Stores in Oxford Street, which claim to embody the latest ideas of a composite structure comprising steel framing and reinforced concrete, are described, and some of the principal constructional drawings are given. Mr. C. F. Marsh summarises in a form for comparison with the rules of other countries the latest regulations and recommendations for the use of reinforced concrete in buildings issued by the Prussian Ministry of Public Works. Photographs and plans, with some descriptive notes, are given of a reinforced concrete cathedral recently erected in Poti, Russia. The concreting of the foundations of this building was started 6th July 1906, and the concreting of the large cupola, including the cross, was finished 22nd May 1907. Other articles are "Testing Laboratories for Concrete and Cement," by Cecil H. Desch, D.Sc.; "Concrete Aggregates," by Dr. John S. Owens; "A Reinforced Concrete Cement Storage Building at New Jersey, U.S.A.," where the method was adopted of casting the members separately on the site, and erecting them after setting. The number includes the papers and discussions at the Concrete Institute,

Earthquake-proof Buildings.

An international competition has been arranged by the Lombard Co-operative Society of Public Works, under the auspices of the College of Engineers and Architects of Milan, to determine types and methods of building to be adopted in those parts of Italy which are subject to earthquakes. Plans, reports, photographs, and models will be received by March 31, and awards of £120, £80, and £40 are offered for the best proposals. The secretary's address is 8 Via Lupetta, Milan.

The late Alfred Normand [Hon. Corr. M. Paris].

M. Alfred Normand, the distinguished French architect, and former President of the Central Society of French Architects, who died at Paris on the 2nd inst., had been an Hon. Corresponding Member R.I.B.A. since 1881. He was architect to the French Government, and held the appointment of Inspector-General of the *Services pénitentiaires* to the Ministry of the Interior. Born at Paris in 1822, Alfred Normand entered the École des Beaux-Arts in 1839 as pupil of his father Henri-Marie Normand, and afterwards of M. Jay. In 1846 he carried off the Grand Prix de Rome with his design for a Museum of Natural History. His principal *envoi* from the Villa Médicis was a Study of the Roman Forum with a Restoration: this work was

exhibited at the Paris Exhibition of 1855, where it won for its author a medal of honour. On his return to Paris he was appointed to the *sous-inspection* of several public buildings. From 1855 to 1857 he was engaged in the completion of the famous Pompeian house, in the Avenue Montaigne, built for Prince Jérôme Napoleon, but since demolished. He re-erected the Vendôme Column, which had been destroyed during the Commune, and restored the Arc de Triomphe. Other notable buildings of his are the Central Prison at Rennes and the Hospital of Saint-Germain-en-Laye. In 1890 he succeeded M. Diet at the Académie des Beaux-Arts. M. Normand was Member of the Institute of France, and "Officier" of the Legion of Honour. He leaves two sons, architects: M. Charles Normand, architect to the Government; and M. Paul Normand, Second Prix de Rome.

Memorial to Julien Guadet.

A committee has been formed in Paris to arrange for the erection of a monument to the memory of the late M. Julien Guadet, Professor at the École des Beaux-Arts, and author of the monumental work *Éléments et Théorie de l'Architecture*. The committee is presided over by M. Ch. Girault, President of the Central Society of French Architects, and has as Vice-Presidents MM. L. Bonnier, President of the Society of Architects *dipômés* by the Government, and Fr. Blondel, President of the Provincial Association of French Architects. The monument is to be erected in the interior of the École Nationale des Beaux-Arts. In order to secure a monument worthy of the great figure it is to commemorate, and of the building in which it is to be placed, the committee are appealing for subscriptions specially to M. Guadet's old pupils and *confrères*. The hope is also expressed that others who are able to appreciate his rare talents and high character will seize the occasion to testify their admiration for the late master. The committee of patronage include representatives of America and most of the countries of Europe, Mr. John Belcher, R.A., representing Great Britain. The Treasurer of the Committee is M. L. George, 109 Boulevard Beaumarchais, Paris.

The Annual Dinner 1909.

The annual dinner of the Institute will be held this year on Wednesday, the 26th May, at the Whitehall Rooms, Hôtel Métropole. The Council are very desirous that this festival should be the occasion of a large and brilliant gathering, and they hope to see a full attendance of members. The price of tickets is 21s. for members and their guests, this charge being inclusive. It would be a convenience if members would give the names of their guests when applying for tickets. All applications for tickets, with cheques, should be addressed to the Secretary. If members would kindly give the Secretary intimation before the 1st May as to the friends near whom they desire to sit, every endeavour will

be made, when arranging the table plan, to meet their wishes as far as possible.

The International Building Trades Exhibition.

This Exhibition opens at Olympia on Saturday the 17th April and closes the 1st May. Mr. H. Greville Montgomery, M.P., the organiser of the Exhibition, writes that he will be pleased to send free tickets of admission to members of the Institute who care to apply to him for them.

ARCHITECTS' BENEVOLENT SOCIETY.

Annual Report adopted at the Annual General Meeting 9th March.

The Council in submitting the Fifty-ninth Annual Report have to record a year in which the demands made upon the Society have been exceptionally great. Ninety-nine applications for assistance were received, and, in addition to the annuities allowed to eleven pensioners, relief was afforded in eighty-eight cases. The income would not have been equal to dealing adequately with so many claims had not the Royal Institute of British Architects increased its annual contribution to £100, a sum further augmented at the end of the year by £25. The total amount thus distributed in grants and pensions was £1166. 15s. 7d.

Notwithstanding that the year has not been generally prosperous for architects, and that in consequence many subscriptions have been withdrawn or deferred, the Council have the satisfaction to report that there has been no diminution in this source of income, which amounted to £733. 10s. Owing, however, to the urgency of the applications, the Statement of Accounts shows an excess of expenditure of £74. 18s. 10d., which will be reduced by the £25 granted by the Institute but not received at the close of the financial year.

With regard to the Capital Account, the amount invested has been increased by the purchase of £150 New Zealand 3 per cent. Inscribed Stock. The total amount received in donations was £141. 11s. 3d. Among the chief contributors were Mrs. Arthur Cates £50, Mr. John T. Christopher £22. 15s., Mr. Ernest George £21, and Mr. Arnold Mitchell £10. 10s.

The thanks of the Society are due to the T-Square Club, which contributed £6. 3s. 9d., being the proceeds of a concert, organised by Mr. W. J. H. Leverton, in aid of the Society.

The President of the Society of Architects (Mr. G. E. Bond) has increased the amount of his annual subscription to £5. 5s., and Mr. A. B. Plummer, Past President of the Northern Architectural Association, to £5. Mr. Plummer also issued a special letter of appeal to the members of the Northern Association on behalf of the Society. The Manchester Society of Architects have also sought to promote our objects by making a special appeal in their *Annual Calendar*, as well as publishing a

list of the architects who are also contributors to the Society. With regard to the Societies allied to the Royal Institute the following are on the list of subscribers: The Bristol Society of Architects £3. 3s., the Devon and Exeter Architectural Society £3. 3s., and the Royal Institute of the Architects of Ireland £3. 3s., while the Societies of Manchester, Nottingham, Wolverhampton, and York have at different times contributed donations.

In view of the small number of subscribers—520—as compared with the number of practising architects, the Council would urge on all those interested in the welfare of the profession, and on those dependent on them, the importance of exercising their personal influence in obtaining additional subscriptions.

The Council have with great regret to record the deaths of Mr. W. M. Fowler, Mr. L. H. Isaacs, Mr. G. R. Crickmay, Mr. G. A. Mansfield, Mr. E. W. Mountford, Mr. C. F. Rees, Mr. R. F. Villance.

The following being the two senior members retiring by rotation from the Council, Mr. Walter Landon, Mr. Reginald St. A. Robinson, Mr. H. Chetwili Clarke, Mr. A. Sax in Smeil, and Sir Henry Towner. To fill the vacancies caused by these retirements the Council have the pleasure to nominate Mr. Arthur Ashbridge, Mr. Charles J. Blomfield, Mr. John Bownman, Mr. C. R. Baker King, and Sir Charles Nicholson, Bart. The Council have also the pleasure to nominate Mr. Leonard Stokes, Mr. T. M. Rickman, and Mr. William Glover as Vice-Presidents.

The thanks of the Society are due to the Proprietors of *The Builder* and *The Architect* for granting space for free advertisements in their valuable journals.

The Council also wish to record their indebtedness to the Royal Institute of British Architects both for generous contributions and office accommodation, and to the Staff for their always helpful courtesy in any matter connected with the Society.

MINUTES. X.

At the Tenth General Meeting (Ordinary) of the Session 1908-09, held Monday, 15th March 1909, at 8 p.m. Present: Mr. Ernest George, *President*, in the Chair: 31 Fellows (including 15 members of the Council, 17 Associates (including 4 members of the Council), 1 Hon. Associate, and several visitors); the Minutes of the Meeting held Monday 1st March 1909, p. 324, were taken as read and signed as correct.

The decease was announced of Nicolas Alfred Normand, Member of the Institute of France, *Hon. Corresponding Member*, Paris, elected 1884.

The following Associates attending for the first time since their election were formally admitted by the President, viz., James Everett Bowness, Harold French, Walter Puckering Rylatt, Richard John Tyndall.

Mr. Francis S. Swales having read and illustrated a Paper on AMERICAN ARCHITECTURE, WITH ESPECIAL REFERENCE TO WORK AT WASHINGTON, a vote of thanks was passed to him by acclamation.

The Meeting separated at 10.15 p.m.



SCULPTURE BY ALBERT R. FODGE, SCULPTOR

BRITISH SCULPTURE OF TO-DAY.

By MARION H. SPIELMANN, F.S.A.

Read before the Royal Institute of British Architects, Monday, 29th March 1908.

I AM highly flattered by the honour you have done me by asking me to speak before you this evening on "British Sculpture of To-day." But I would ask you to bear in mind that I am in a position of some delicacy—that I, a critic, am presuming to speak to you, who are artists, and among you a few, I believe, of the very masters of whom I shall speak, and offer to their faces the remarks which I am constantly repeating behind their backs. But I feel sure I shall have your sympathy and good will in anything I may say, knowing that my aim throughout is to point out to the public, as far as I am able, the good in things, without dwelling unnecessarily on what is indifferent or bad.

Moreover, in justice to myself, I would remind you that this Paper is an attempt to compress into a single hour and a half the three lectures which I delivered before the Royal Institution: and that in the compression I have had to omit many names, and all my talk about the philosophical and technical theory of sculpture, and the deeper criticism—if I may so call it—in the desire to show as many works as possible: with the view to giving an object-lesson, rather than a theory-lesson, to the many thousands of the public whom I have addressed in England and Scotland, on the remarkable position to which, in these later days, British Sculpture has attained.

The object of this Paper, then, which I now have the pleasure to deliver, is not, primarily, to deal philosophically with the theory of Sculpture. That would be impossible in the short time at my disposal. My concern is with the School of Sculpture which has arisen in Great Britain within the memory of some here present, and my aim to illustrate as great a number of the works themselves as the time at my disposal will allow, and to offer such words of criticism and suggestion as may properly be expressed in respect of the efforts of men, most of whom are, happily, still among us. But, first, I would place before you certain facts in

relation to the art usually overlooked by the general public—for whom “Sculpture” usually means little more than a plaster nymph, a bronze gentleman, or a marble angel, rendered as faithfully as may be.

Since 1875 or thereabouts a great change has come over British Sculpture—a change so revolutionary that it has given a new direction to the aims and ambitions of the artist, and has raised our British School to a level un hoped for, at least wholly unexpected, thirty years ago. Our sculptors, awakened to a full appreciation of plastic and glyptic beauty, found themselves practically without a past of their own to inspire them. There was *no native tradition*. Competent, as we shall see, to found a national school, they have been beginning at the beginning. That awakening came from without, brought here and stimulated mainly by two Frenchmen—Dalou and Lantéri—and carried on by two Englishmen who had studied abroad—Lord Leighton and Alfred Gilbert—and, in a lesser degree, by Onslow Ford. Since then the whole conception of sculpture in the schools has been modified, and the spirit of enthusiasm has been set aflame.

It is difficult to realise how bad our sculpture was sixty or seventy years ago. It was then said that we had four classes or grades of merit in our monuments in Great Britain—Bad, Worse, Worst, and Worst of All. Men of taste rebelled against our pretending to do honour to Nelson by “mast-heading the Admiral” on the top of a prodigious column in Trafalgar Square, out of recognition and almost out of sight: and they laughed at what was considered an appropriate homage to the then “Duke of York,” elevating him to the top of another great pillar with a lightning conductor through his brain, which lightning conductor they declared would be very useful on which to file his unpaid bills. And they asked—Is this Sculpture? Is this Art? And, most of all, they chuckled at the “George III.” equestrian statue in front of Waterloo, now Oceanic House close by Trafalgar Square, and declared that “never was seen so drunken a horse with so sober a rider.” The fact was—(I do not suppose anyone remembers it now, even among the artists’ circle)—the fact was, that that statue-group was originally a “St. George and the Dragon,” commissioned by King George from Wyatt. But before it could be cast the King died, and, by order of the Government (aided by subscription), Wyatt changed “St. George” into the King. The spear was exchanged for a cocked hat, a wig and pigtail took the place of the helmet, and breeches and Hessian boots covered the muscular limbs of the brawny saint. The dragon was removed, but the horse, a capital horse, was left “startled”—(as well it might be)—and there is your Government official tribute to its Royal Master! Thackeray said that he once took a French friend up to this production—who, after a moment’s satisfied examination, murmured—“C’est bien—Waterloo is avenged!”

Ignorance of sculpture is confined to no class; it is to be found unhappily in the highest official class—in that very circle, the Government circle, where appreciation is most earnestly to be desired. There is an idea abroad among the sculptors, and among some of the public, that a Ministry of Fine Arts, such as exists in France, would secure support to the artists and good art to the public. “The only way for a nation to obtain good art,” said Ruskin, “is to enjoy it.” Assuredly a pretty safe way to secure bad sculpture is to appoint a Fine Arts Minister from among our distinguished politicians. We need but remember in order to nurse our mis-trust of official taste and patronage—how not long ago a Premier in the House of Lords, and an ex-Cabinet Minister in the Commons, poured jesting scorn—upon what? Upon one of the finest modern works of architectural art in England—with the rollicking approval of their hearers in both Houses. I refer, I need scarcely say, to Mr. Norman Shaw’s New Scotland Yard. You will remember that, in view of the politicians’ foolish ribaldry, the leading architects of England testified by a joint letter of vigorous protest to the papers. When the beautiful little group of “Maternity,” by Dalou, was set up by the Royal Exchange,

with an unfortunate canopy over it, some of the City Fathers actually protested against the work, as the figure symbolical of "Maternity" had an infant at her breast and yet wore no wedding ring! Could philistinism further go than this? As if motherhood in the poetic abstract takes account of the latter-day practical invention of the wedding ring! No wonder that Canova—when he heard our upper classes, with no true perceptions of their own, repeating commonplace opinions about sculpture—exclaimed: "You Englishmen see—with your ears!" Nearly all public patronage went to encourage bad art. Think of Theed's "Hallam" and of the "Napier" in Trafalgar Square! When the gallant General died, and it was mooted that some celebration was desirable, I was moved to suggest that the Napier Statue in Trafalgar Square should be *taken down* in his honour, and the proposal was gravely received in several quarters with serious approbation.

The most mischievous ignorance of all is that which is shown by "Committees" formed for the erection of a public statue. Unconsciously, perhaps, they baulk and cripple the artist by irritating interference, under the tyranny of which I have for years past seen certain of our ablest sculptors driven into failure: and in the case of Alfred Stevens, Barry, and Wilkins we know that they were driven literally into their graves. Committees should recognise that, having chosen their sculptor and approved his model, their function is limitable to that award, and they should do nothing that will disturb the delicate organisation of an artist who is greatly at the mercy of that "inspiration" which is the flower of his artistic emotion and the very essence of his work. Although he who pays the piper may call the tune, he does not buy the right to dictate how the tune is to be played, or to stop the performer while the piece is proceeding, either to change the air or alter the key. Moreover, a model in relation to its development is of so technical a nature, and so deceptive to untrained judgment, that those who have not expert training should leave the matter to those who know.

Besides knowledge, there is taste—and taste must be trained for fear it be corrupted by the flashy and the meretricious in art, which are more offensive and dangerous than the merely incompetent. Bad taste is worse than no taste at all: for "no taste" may be educated, but "bad taste" is vicious already. How vicious and bad it can be, and how perverse of true appreciation of what is good, we may see in the extraordinary popularity of that clever trash from Italy that gathers admiring crowds and deluded purchasers around the sculpture shop-stalls in popular exhibitions and the open sale-marts in our great towns. It may be clever in its way, aiming primarily at "astonishing the natives"—work that is tricky, dodgy, vulgarly imitative, distinguished by paltry, false, or over-forced sentiment, and by lack of appreciation of the elementary proprieties. The sculptor who executes such work and does it skilfully is like a man who utilises his gifts of strength and agility for turning back-somersaults for the delight of the crowd. Can anything be more deplorable than the Campo Santo at Genoa, where the most grotesque perversions of the art-sense shock the visitor at every turn, almost paining him into unseemly laughter? Such peep-show sculpture is low in conception and common in sentiment, not dignified or noble in its expressive suggestion of grief, and betraying no art that brings consolation through its poetry and elevation.

Chief among the characteristics of the modern school is the effort towards such realism and picturesqueness of treatment as do not detract from the dignity of the conception. The principle is sound that sculpture must primarily represent ideas not things: yet the prevailing belief is—that a certain picturesqueness, restrained and in good taste, holds the future of sculpture. The public, of course, welcomes any approach to what is pictorial and amusing, in subject or treatment, not respecting the truth of Michelangelo's axiom that—"The nearer painting is to sculpture the better it is: and the nearer sculpture is to painting the worse it is."

But they do recognise in poetic realism a relief from the bald generalities of the Macdowells, the Joneses, and the Durhams of the past generation—when we were given Venuses, Graces, Dianas, Muses, Nymphs, Goddesses—all dummy sisters from the same dummy mould—you may see half a hundred of them in a dismal walk round the Crystal Palace—sickly-sweet in their cold, empty charm, and carried little farther than carefully smoothed-out, over-sized sketches. The present aim is to give life without undue realism—a suggestion of reality, shrouded in poetry and grace. And the nude need no longer be so severe as Ruskin claimed: yet such figures must always remain symbols of the ideas they are to personify.

These symbols we love for their beauty and their significance, for they are of the essence of sculpture, the types of humanity, and the representations in human form of poetic conceptions. They are, therefore, an irresistible attraction to every sculptor who, in dealing with ideal conceptions, usually avoids the draped figure, and so escapes in one direction subjects of actuality and of the present day. As Lessing pithily says in the *Lacon*: "The aim of art is beauty. . . . Clothes are the outcome of necessity—and what has art to do with necessity?" And it is not only beauty of form that attracts the sculptor but beauty of movement, for its own sake, as developed in the play of muscle, joint, and structure, and of expression. All this is concealed by drapery. At the same time, in drapery, properly managed, elegance and dignity are inherent: yet it is most admirable when simply treated and severe—with any ornament rigorously subordinated to the elevated character of the figure.

It is not surprising that so subtle an art as sculpture is little understood in this country, or, indeed, by the general public anywhere, for the eye is ever more affected by colour than by form. Again, while painting is frankly illusive, sculpture appears to the unthinking to be imitative. Yet it is nothing of the kind. "Its beginnings are more easy than those of any other art and its endings more difficult. Almost anyone can mould pliant clay into the copy or the semblance of a man, few can conceive and embody an elevated idea, not by imitation of a model, but by the fine treatment of form and the noble character of expression and design." For the form is without colour, without atmosphere, without tone, without subjects or anecdote, or landscape, or other accessories appropriate for pictorial treatment. In sculpture the model has to be *idealised* or the result is commonplace. In short, while the painter can take anything almost for his subject, the sculptor is severely and chastely restricted.

This being so, the introduction of colour, if carried into imitation, necessarily condemns itself. (I am not alluding, of course, to chryselephantine work.) For the more a statue looks like a real man, the less it is like sculpture and the more like a waxwork. On the other hand, a single colour is no colour sculpturally considered. But whether we set up in our places a white gentleman, a brown gentleman, or a green gentleman, we *must* recognise him in certain nobleness of aspect—the quality above all others which justifies the perpetuation in sculpture of the memory of any man. The works I am reserving to show you at the end will illustrate fully what I mean.

With these few words on the nature of sculpture I revert to the work of the British School.

Until Alfred Stevens, scarcely anyone in this kingdom thought of instilling real life and blood into the clay and marble. And what life it was that Stevens realised!—not life only, but dignity, and nobility of form and movement, previously unknown in British work. Follower though he was of Michelangelo and the Italian Renaissance, he was entirely personal and no copyist. He was in the right sense unconscious of his greatness, and, had not the accident of an open competition made his genius patent to the world, he might have gone on to the end of his days teaching, designing fenders, pots, and fire-grates, with the occasional relief, perhaps, of painting a portrait or decoration (even the tables in the Refreshment Room at South Kensington

Museum are his). One of the secrets of his success was his knowledge of construction, and his feeling for architecture helped him to treat sculpture with fine decorative effect.*

His "Memorial of the Great Exhibition," which was not carried beyond the sketch, shows his constructional ability and the intellectual force of his imagination. It is heavy—not with dullness, but with power. The great sketch for the "Wellington Memorial" has similar qualities. It is here seen complete with the equestrian figure on the top. Into the bitter debate on what I hold to be the lamentable desecration of this supreme national treasure by a clever young sculptor at the present moment I need not enter here. With certain modifications it is now, in St. Paul's Cathedral, lacking its final ornament, but revised in its architectural forms in view of the final abandonment, as Stevens thought, of the horse and rider. Yet the equestrian group is to be put up on this altered design after all. As we see it here we can judge of its one fault—a weakness, not of construction, but of design—the arched moulding, I hold, being in appearance too slight to carry the superincumbent mass. And not in appearance only: for Mr. John Belcher, R.A., has lately written to *The Times* to declare that the structure has not sufficient strength to bear the added weight of the Duke mounted on his curvetting cab-horse—as this "completion" appears to be.

Yet even Stevens was powerless to influence very much the prevailing passion among our artists—who were hypnotised by the "Antique"—for wrestling with sculpture, as it were, in the Græco-Roman manner.

Thomas Woolner, who maintained that elevation of conception which brought him applause for his "Virgilia lamenting the Banishment of Coriolanus" (whom she sees in her dream)—to my mind his most perfect and exquisitely touching work—did not attempt a truly realistic subject till towards the end of his career, and then failed of complete success. Baron Marochetti tried to introduce a more modern feeling, and his "Richard Cœur de Lion" at Westminster evoked great enthusiasm. But, for my own part, I cannot admire the incongruity of a twelfth-century king mounted on a modern thoroughbred of the toy-terrier breed and raising an arm devoid of all vigour. Sir Edgar Boehm was on the whole more successful, and his influence contributed somewhat to thaw the chill: but, unhappily, his best-known work in London, the "Wellington Memorial," is cold and empty, though possibly correct enough.

Foley, who at first was all for "the unities" and "a pure style," as he claimed, in his later years threw his previous contentions to the winds when his epoch-making "General Outram," now in India, reminded the public that monuments need not be staid to dullness, or stiff and dead in their imperturbability.

Meanwhile, Armstead, who at the time of his death was the oldest of our living sculptors (I am forced to bring forward the sculptors in chronological order of their first exhibiting, as the only consistent arrangement to prevent overlapping), was working in the spirit of the younger school, and producing sculptural schemes of unprecedented magnitude, at the Colonial Office. The statue, set up at Chatham, of "Lieutenant Waghorn" (pioneer of the Overland Route) is impressive by its style and its spirit, by its energy, strength, and picturesqueness. But a more interesting work, technically speaking, is a memorial to a son of the Earl of Wemyss, "David and Lion," now fixed in the Guards' Chapel at Knightsbridge. Fine in imagination and design, it is Ninevite in character of treatment. It is in very flat relief, only one stage removed from the Egyptian, when "the expression" depends greatly on the lines of the outer contours. This is true relief, for we are not allowed to forget the flat surface from which it is carved. This work was carved wholly by the artist's own hand direct from the living model. The crowning merit of Mr. Armstead's work is its unornamental character, its unusual dignity, and "bigness," and sense of style, without any "cheapness" of effect, or of the poorness of nature.

* NOTE.—From this point forwards all the examples referred to were illustrated by lantern slides.

George Lawson, too, had a genuine sense of style, and just escaped general recognition as a fine sculptor. He belonged to the Scottish School. His "Motherless" is a group admirably Scottish in sentiment, full of pathos, and free in handling, yet, as I think, almost too pictorial for sculpture. His best work is full of distinction and free from trick or trifles.

When Mr. Brock went to London in 1866 he entered the studio of Foley; but he soon felt the foreign current, and, brilliantly rebelling against his friend and teacher, he was courageous enough to modify his style when it was already formed and his career well-assured; and, so developed, he has left his master very far behind.

The ideal work that marked the transition was "The Moment of Peril"—a fine scholarly group, soon to be surpassed in technical quality and refinement of taste. How great was the change may be seen in "The Genius of Poetry"—graceful and reposeful where the other was violent in action and passionate, and sculpturesque where that was pictorial, or at least anecdotal. But a higher point was reached in "Eve," so touching in attitude and sentiment—a fair, shamed woman, purposely not endowed with that conventional perfection of beauty commonly attributed to the First Mother—more exquisite in feeling than in person, with her head bowed with the weight of remorse. In portraiture Mr. Brock has similarly excelled. The inherent difficulty of a seated figure and upraised arm is happily surmounted in the "Dr. Philpott of Worcester." The treatment of drapery, especially of the sleeves for example, is very striking. There are no black holes of shadow: the depressions are shallow to hold the light, and effect, or "snap," is given by the crispness or sharpening of the edges. Mr. Brock's statue of Professor Sir Richard Owen shows the same handling. We see the justification for the treatment in the group of "The Fates" among the Elgin Marbles.

From that we turn to a work more admirable still in feeling—the bust of Her late Majesty, "Queen Victoria"; one of the noblest, most dignified, and most exquisite works of its class executed in England—full of tenderness, of character lovingly rendered, with a delicate feeling for form rightly realised. Carried so far that the marble almost resembles flesh, and almost breathes, it remains sculpture, free from trick. And the whole is a most finished and beautiful rendering of the aged Queen at her best—sweet, elegant, thoughtful, wise, and solemn.

This work heralded what is hitherto the sculptor's masterpiece, by which the memory of "Lord Leighton" is to be kept green for evermore in the aisle of St. Paul's Cathedral. In proportion, in harmony of design and of line, and in silhouette, in conception, in sentiment, in detail, and in decoration—it surely offers little to the adverse critic. The effigy shows Leighton asleep, alive to all who knew him, and figures personifying his arts, Painting and Sculpture, at head and foot, guard his sarcophagus. This is a monument in which the great President himself would assuredly have rejoiced, for all its beauty, tranquillity, and peace.

Mr. Brock's great equestrian statue, "Edward the Black Prince," will be familiar to every visitor to Leeds—a noble work clearly inspired by the most magnificent equestrian statue in the world, the Colleoni Statue by Verrocchio in Venice—one of the most impressive works of its kind produced in our day. Finally, we have the model for the Queen Victoria Memorial, now being set up in front of Buckingham Palace, the general view showing the platform 70 feet wide. The side basins are to be 160 feet long and 28 across: one with their figures representing "Power," that is to say the two Services, and the other "Intelligence," that is to say Arts and Sciences—though intelligence is probably not denied to the Services also. The water will run night and day. The small figures in the foreground are intended to show the scale. The central feature is on a one-tenth scale, so that as the model is 7 ft. 6 in. high, it will be 75 feet high to the tip of the Victory's wing. The idea is—the great Queen seated amid her personal qualities which made her great. "Victory" at the top is supported by "Courage" and "Constancy," and around almost on a level with the Queen are "Justice," "Truth," and "Mother-

hood." This great work is only one incident in the great scheme of the Processional Road. I think that Mr. Brock has judged soundly in deciding to follow traditional lines for this great work: for this was not the occasion, as some have held it to be, to make experiments or to run risks by striking out in new directions. Although the general idea is based on tradition, the work is not only personal to the sculptor but thoroughly modern in treatment. And it cannot be doubted that the complete work will be the crowning triumph of Mr. Brock's career.

Sir Charles Lawes-Wittewronge—gratefully remembered as the defendant, on principle, in the great libel case of *Belt v. Lawes*—has spent his life in producing a very few works of high ambition. Following his Mazeppa-like group, "They Bound Me On," with all its complexity, he has produced his still more complex "Death of Dirce," distantly suggested by the work by Apollonios and Tauriskos—"Dirce," known as "the Farnese Bull" in Naples—belonging to the first century B.C., Hellenistic sculpture. There is a bull and a struggling man—but there the resemblance ceases, except the main similarity that it is also, unavoidably, pyramidal in composition. This colossal work is in marble, with white figures, and bull and ground coloured grey, in order to simplify the aspect of the figures. It is probably the most ambitious work of its class produced in England in modern times, and looks well all round. Sir Charles, who is a champion of the architectonic note in sculpture, is always strong and healthy in his work, with good, robust character. Its occasional heaviness or effervescence is more than compensated for by its vigour in action and treatment, and, if ever it wants repose or refinement, it is sculpturesque in manner, with a bigness and boldness suited to the open.

Mr. Hamo Thornycroft, meanwhile, turned from the "fleshy school" towards the Greeks, and with "Lot's Wife"—with the vigorous modelling of the head turned to look, and the lower limbs and drapery already taking a columnar form, as she is struck cold with the sudden transformation—he proved that a new sculptor had arisen among us. Then came "Artemis"—a surprise even to those who thought they had taken their measure of the sculptor's commanding power. The forms and the head are nobly conceived, and the whole is original in arrangement and statuesquely beautiful. With "Teucer" Mr. Thornycroft reached the high-water mark of his early career. This figure, watching the last arrow in its flight—the eighth he had let fly—aimed at Hector by the Homeric bowman, is realistic though Classic, instinct with life, and noble in form.

On the other hand "The Sower," inspired of course by Jean François Millet, is a semi-realistic statue introducing the problem of modern dress in the figure of a British peasant, with the heavy gait, the natural yet heroic pose, the fine swing, the sadness and pathos of the soil. What the sculptor loses of the human form, by reason of his design, he gains in action and in movement.

A brilliant example of the realistic is the "General Charles Gordon," in Trafalgar Square, suggestive of the masterfulness, dignity, and quiet self-confidence of the hero. It is one of the finest statues in London of its class. For a contrast, compare with this the "Dean Colet," the founder of St. Paul's School, quaintly whispering, as it were, the name of Verrocchio or Donatello, telling, with the delicious accent of the Italian School, among the more familiar realism or more obvious poetry of to-day.

In the great national memorial to Mr. Gladstone, in the Strand, we have the *magnum opus* of Mr. Thornycroft in elaborateness, if not in quality. I show this particular view, not so much to illustrate its general arrangement, but in order to demonstrate the artist's idea in contrasting the dignity and sturdy immovableness of Gladstone the Man, energetic even in repose, with the movement and variety of his qualities and activities, symbolised in the four groups that surround the pedestal on which he is raised high above the passer-by.

The figure itself faithfully and impressively reflects the character of the man, firmly and

solidly planted, in his robes as Chancellor of the Exchequer, alert, intense, yet benevolent in expression: it is the man who for so many years dominated England's politics and directed her destinies. It is finely set up, strong in mass and balance, and fairly interesting in silhouette.

Of the monumental groups, which have been designed with due regard to movement and angularity, "Aspiration" and "Courage" are held to represent the statesman's cardinal characteristics. "Aspiration," heavily weighted with drapery, strives mentally to attain to some high ideal with which knowledge, as indicated by the book she holds, has inspired her. "Courage"—that is to say "Moral Courage"—seizes with her firm grip the "Serpent of Evil," the coils of which are held down upon the rock beneath her knee while she seeks to sever its head with her sword. As a foil to this fearless "Courage" is the frightened child who clings to her for protection.

"Education" turns with sympathetic attention to the boy by her side, and to him she shows the way to knowledge and the way out into the world. By a curious chance she is actually pointing towards the old School Board Offices, hard-by. "Brotherhood" is symbolised by the figure of "Humanity" teaching the boy on her lap—a child of strong Anglo-Saxon type—to regard with friendship and brotherly affection the lad of another type and nationality whom she draws to her. Yet Mr. Thornycroft stands forth as a sculptor who frequently has the touchstone of grandeur and style, with a big, broad rendering of the human form, with something of the movement of the Greeks, and not a little of their repose.

Mr. Havard Thomas is one of the most serious and artistic of our sculptors, who loves to carve portrait-busts direct in marble. It is not by his public monuments of Samuel Morley and Gladstone that he obtained his following, but by his ideal work: "The Slave Girl," carved at the beginning of his career, and "Lycidas"—the sensation of three years ago—his latest important work, which were both at the Franco-British Exhibition. The aim is the same—character and style, regardless of the conventional representation of beauty. "Lycidas," of course, is inspired by the "Boy Praying" of the School of Syppus (fourth century B.C., now in the Berlin Museum). Schoolmen have charged it with being ugly: the shoulders with being of different widths (which is untrue), the pelvis with being too small, and the legs not a pair. But no one denies the beauty of the modelling and quality of surface, or the fine Classic feeling of the whole. Like all Mr. Thomas's work it is, I think, reposeful and quiet in arrangement and effect—almost severe—with refinement and charm of sentiment, and excellence of taste, even when wanting in force, and effect of light and shade.

Onslow Ford, who was lost to English art before he had passed the middle age, made his first success with the figure of Henry Irving as "Hamlet"—a well-conceived piece of realism and expression, romantic, and verging on the theatrical, which is precisely what an actor's character-portrait should do. The later seated statue—that of Huxley—more keen, subtle, and refined, is more strikingly sculptural, for in it is no object and no ornament to divert the attention, or to suggest a false appearance of decoration. The "Gordon" (erected at Chatham), camel-mounted, reminding us far too vividly of the "Arab Chief" by Barye, is more open to criticism on the score of elaborateness of ornamental details. Herein, indeed, it oversteps the boundary of what is allowable in sculpture: and, although the portrait is successful, it gives the idea of an enlarged ornament rather than a piece of sculpture. The "Shelley" Monument is finer in its parts than in its entirety, I think, because the proportions and style of the details are infelicitous: and the wreath militates against, rather than helps, the sculptural dignity of the exquisitely rendered figure of the drowned poet, who has been thrown up by the sea. It should never be forgotten—what the Greeks taught us—that the harmony of the *ensemble* is of infinitely more importance than the details, no perfection of which can compensate for defect in arrangement and silhouette.



THE SHELLEY MEMORIAL AT UNIVERSITY COLLEGE, OXFORD. BY ONSLOW FORD. (R.A. SCULPTOR.)

As a skilful portraitist, whose heads are speaking likenesses, Onslow Ford always showed the least common aspect of the sitter, and few in this country have excelled him either in skill or taste. The head of Sir John Millais was executed when death was tightening its grip upon the great painter. Onslow Ford's work always charms, although not by any means of the highest class. It would have taken more commanding position had it been more restrained in the matter of ornament. Yet its grace and refinement and sweetness of feeling happily reflect the fascinating character of the man whom we all loved and admired.

In 1877 there burst upon the world a new sculptor in the person of the man who, the very next year, was to be President of the Royal Academy.

Lord Leighton, as he told me himself, had been amusing himself in his studio one day by twisting up in his fingers a piece of modelling clay till it roughly took the form of a man struggling with a serpent. M. Alphonse Legros saw the tiny sketch, and advised him to make a statue of it. Leighton took the hint, and "An Athlete struggling with a Python" was the result. No work of modern times has made a greater stir on its appearance than this group, modelled by a painter, which would have done honour to the ancients. Suppose it had been dug up from Attic soil, what would the world have said of it? Grand in style, noble in type and in form, profoundly learned in the knowledge of the human figure it displays, fine in pose,

in action, movement, palpitating with muscular life, brilliant in execution, and instinct with the manner of the painter himself—the work was hailed, justifiably, as something marvellous

a finished masterpiece by one who was thought to be not yet even a student in sculpture—the greatest achievement in its own way ever produced in this England. And yet it was felt to be lacking in “expression”—in that kind of humanity which every truly great masterpiece must exhibit. And we found artists marvelling at the arrangement, at the technique, and at the casting and the like, when they should have been caught by the sentiment. But Leighton did not care. He himself declared, as he expressed it to me, that what he was “going for” was beauty and expression of form, to the neglect of sentiment.

But a curious thing was this. The model one day, tired out and quite stiff by a sitting of two or three hours without a rest—for Leighton was an exacting master when at work, and compensated his models with double pay—the model, I say, at the welcome order, “You may rest,” after one or two vain attempts, braced himself with an effort to a refreshing stretch. Leighton was so much struck by the beauty of the pose that he cried out, “Stop like that!” The man did so, and Leighton kept him standing for two hours more while he began his sketch for “The Sluggard.”

Although far simpler in design, this work is of even higher accomplishment than “The Athlete,” with its fine line and action, and its sense of style in the elongated joints. It is just as Greek as the other in its devotion to form, but instead of representing an action, an occurrence, it records a condition, a sensation, and so it is the subtler and higher conception; and it has some of the mystery which is distinctive of the finest art of modern times, but in which modern sculpture is so notably deficient. Great as was the sensation made by Leighton’s sculpture, and great as is his place in British art, the master seems to have no direct follower or imitator among the younger men.

Mr. John Swan has specialised as a sculptor of a particular class of subject, and is so much of a stylist that he must know that when his work is done there are not very many who will appreciate its full beauty and importance. For the most part his sculptures are studies of animals, mainly the *felidae*, because they alone display, with the fascinating impressiveness of their sinuous bodies, the whole gamut of the passions in their most concentrated form. There is here nothing false, nothing pictorial, nothing but the “dignity, nature, and tragically puissant muscularity of the mighty cats.”

In this “Leopard playing with a Tortoise” (which recreation on the part of the leopard naturalists may possibly challenge) you may see the note of Mr. Swan’s art—“sinuosity,” with its tense muscles, its stretched and folded skin, and the suppressed frenzy of enjoyment. The note of Barye, the great Frenchman, from whom Mr. Swan has drawn inspiration, is power and violent action and decorative form, as you may see in his celebrated “Jaguar and Rabbit” (in the Louvre Museum). If with this you will compare Mr. Swan’s more naturalistic “Leopard Running” you will see my point. It is a fine, grim, semi-realistic study of a great cat’s crawl, expressive all over, from its fierce and threatening head to its passionate, quivering tail. Not only have we the fine massiveness of treatment, but also the texture of the fur and the hang of the skin. Mr. Swan does not force his anatomical knowledge upon the spectator; he conceals it as a sculptor should, and does not err in giving us science instead of art.

A student of animal life not less enthusiastic is Mr. Harry Dixon, whose “Bear Running” is startlingly true, alike in movement, character, and form, and in construction too, when seen all round. In the back view the truth of the movement is, perhaps, even more convincing, and the impression even more admirable. The bear seems positively to be scuttling away from the spectator.



THE LAWES MEMORIAL, WESTMINSTER ABBEY. ALFRED GILBERT R.A., SCULPTOR.

We now come to Mr. Alfred Gilbert. The position of Mr. Gilbert in the art world of Great Britain has long since been proclaimed by his brother sculptors and accepted by the public. Their admiration has set him on a pedestal so high that his artistic reputation is almost beyond harm—even of himself. Rarely has a man in the history of art burst upon the world with a message of hope, translated into more brilliant achievement. He stands as one who has preached in his work a great movement, and in less than a decade effected as much as any other the salvation of the British school: and has influenced, quite as much as Dalou or Professor Lanteri, many of the young sculptors of the country.

His chief production while he was still a young man in Rome was the beautiful group of the "Mother and Child," produced when the Classic sculptors of that city were immersed in the spirit of antiquity. This group brings to mind, perhaps, the teaching of the French school, like the "Charity" of Dubois; but it recalls by its ease and dignity of arrangement some of the noble realism of Michelangelo's "Madonna and Child" in San Lorenzo in Florence, or the other in Bruges. The work was young, of course; but what it lacked in power it gained in sweetness and tenderness, and made a sort of personal appeal to the emotion of the spectator. This statue-group, which represented, I may explain, Mr. Gilbert's

little son and his nurse, made a great sensation in Rome: the modern feeling astonished the Roman sculptors, some of whom are only now doing this kind of work. Mr. Gilbert's appearance in the London exhibitions, with "Perseus" and "Icarus," did not escape the vigilance of the critics. But other of Mr. Gilbert's qualities are seen in his portrait work, which are expressive biographies in bronze or marble, full of character, and with a spiritual, as well as a physical, side, the mind displayed with manly sympathy, and the flesh and textures perfectly realised, yet broad, strong, and modest as can be. In the fine effigy set up to "John Howard," on the centenary of the philanthropist's death, in the market-place of Bedford, some of these qualities are obvious. The beautiful and highly original pedestal has done a good deal to direct into a better channel the eccentricities of what is called the "New Art," with its spasmodic macaroni style of ornament, of which such appalling examples are to be seen at the present day. It foreshadowed the Shaftesbury Fountain. But greater far than this is the noble monument with which Mr. Gilbert's name will ever be associated—the magnificent colossal "Statue of Queen Victoria" erected at Winchester. Unfortunately no adequate photograph could be taken of it as it stood against the fidgety background of the Municipal building. To that I will return in a moment. The Queen-Empress, the head of the State, in all her magnificence of office, personifying in herself all the splendour and greatness of her vast realms: dignified and superb: bearing easily all the emblems of majesty which the artist has so happily devised—yet gentle: the mother of her children, tinged with melancholy at her lonely state: her face lined with noble furrows gained in the service of her people—such is this statue, surpassed by few effigies or monuments wrought by artist to the honour of the Sovereign he loved and revered. The profusion of an ardent, poetic imagination is seen throughout—in the general arrangement, in the exquisite Victory that surmounts the orb—in the stately throne—full of invention and originality—worked out in every part and in every detail with infinite care, at the back as well as all around. The main conception is never lost sight of, though it gives birth to a score of dainty conceits—not all of them, no doubt, beyond criticism, because not all of them purely structural. But the work, as it stood, is a veritable masterpiece.

Now see how we care about masterpieces of sculpture in England. The statue was designed for *the interior* of a building—the Municipal building in Winchester. But when the statue was presented the Municipality said they had no room for it, and it must go *outside* the building in the open air. So it was set up as you have seen it, in a bad position. At last it was re-erected in a garden: but the indifference to this treasure of art by the authorities had developed in a worse form in certain of the populace, who robbed it of some of its beautiful accessory statuettes in the niches. It is now on a plinth too high to be properly seen: it has lost its crowning feature of wrought iron: the figures have disappeared, both the two guardian angels on the top of the throne-back and from the niches, not only at the sides, but in the front and at the back as well, so that the thing as it stands seems almost but a framework of the finished memorial with its little garden of statuary. No wonder that Mr. Gilbert is heartbroken over it—at least, that he has declared his loss of interest in the work, and his unwillingness to consider any scheme of restoration.

More complete than any of these is the conception for the "Duke of Clarence Memorial" at Windsor, of which only the simple first sketch of the central feature as it was photographed in the artist's studio is seen in the model. Since then there has been evolved and developed a wealth of symbolical figures, of exquisite ornament, and of pretty pathos of imagery which makes a strong appeal. The guardian angel which holds over the dead Prince the crown of immortality—the only crown the Royal youth might inherit—is of touching significance: and the little mourning cherub, not an Eros but Anteros, is in itself a sob of beauty. The whole composition forms a most harmonious line. Sumptuous as is this tomb in its completed form, with its grille

and all its beautiful figures in various material—the “St. George” is one—it moves the spectator by refinement and elegance, and we cannot but feel that its melting pathos must hold some sort of consolation for those for whom it was wrought.

Then we have the “Leicester War Memorial,” a great work being built up from the tiny model seen beside it. The wings were to be of beaten metal—indeed, little but the head and arms were to have been cast. The banners intertwined are those of England, the Transvaal, and Orange Colony, in token of reconciliation. This is the monument the non-completion of which has brought the frugal sculptor into such dire trouble. The public has thought that Mr. Gilbert has done no work for the money entrusted to him. Now, this before you is the first colossal monument he made. Dissatisfied with it, seeing how he could do better, he smashed it up. The second suffered a like fate, for the sculptor in his passionate devotion to his art constitutionally thinks only of the work, and forgets all about the subscription list. At the present moment, the third version, which I have seen, is crumbling up in his studio, while misfortune overwhelms him. I know of no such tragic story in the whole history of art—a very god of beauty crushed by the weight of his own character and of public misunderstanding.

Alfred Gilbert is not to be considered so much as a severe sculptor, but as a sculptor and ornamentist. So that I believe it to be truth that no country can boast an artist (at once sculptor, decorative artist, and artificer) of greater creative genius—that simply buds out ideas, motives, and conceptions—and who has accomplished more since the time of Cellini. And when we remember that to England who produced him, are due also Flaxman, Alfred Stevens, and Watts, we may well ask ourselves if “Form” is indeed foreign to the temperament of this country, and if sculpture is really an exotic in the land?

It seems but the other day that Harry Bates, with his “Socrates teaching the People in the Agora,” proclaimed himself a sculptor-student of power and imagination, with a romantic feeling, as it were, for Classicism. He rose to his full strength in the great panel—“Homer—A Blind old Man, and Poor—Sweetest he sings.” In this work, student’s work it is true, with its balance and dignity in rhythmical line and fine expression, we find a flexibility which few, if any, young Englishmen had shown heretofore; the construction seems so right and so sculptural, and the sentiment so elevated and so musical. Nor does the background detract from the main subject: Homer and humanity in front, and behind a vision of the Parthenon and Pallas Athene and the great Sun of Art rising with the dawn of Poetry. Equal serenity, equal repose and delicacy, distinguish the beautiful “Pandora” about to open her ivory casket. Exquisite in modelling, it is clearly founded on the Antique and achieves the purity of style at which the sculptor aimed. It would, doubtless, have been better had the ivory embellishment been in marble, too; but all is so delicate and chaste that it seems ungracious to criticise so agreeable and charming a work.

Once more the Greek comes out in the strenuous work of the following year—“Hounds in Leash”—with its fine modelling of the straining dogs. The group, in the round, is more open and less involved than it appears on the screen; and it is of fine effect in the Tate Gallery, where the plaster of it figures along with the “Pandora.” The bronze belongs to Lord Wemyss. Harry Bates—the product, as it were, of the British Museum—was cut off as he was approaching the zenith of his middle age: yet in the short life during which he laboured he did splendid service to our school of sculpture and of sculptors, while the photographic reproductions of his beautiful reliefs have been welcomed throughout the land, in homes into which never before had sculpture entered.

In striking contrast with Bates is Sir George Frampton, in whom we have one of the most versatile and original artists of the day, thoroughly in the “new movement” which he has done so much to direct. Highly accomplished, he is at home in every branch of his art and

covers the whole field. It is scarcely fourteen years since he produced his statue of the discovery of Romulus and Remus, "The Children of the Wolf"—an able work enough, but not yet expressive of the full degree of individuality which the artist was soon to reveal. It was followed by "Mysteriarch"—a head which the French, I suppose, would call "Enigme"—beautiful in conception and execution, reposeful and decorative, the first of the type of work with which the artist has since identified himself. He was now in open rebellion against "white sculpture" and thenceforward devoted himself to colour. The quaint statue of "Dame Alice Owen" (the founder of the school wherein it is erected, in patterned bronze and marble, seems to recall, so far as the bronze is concerned, the class of work we see in the Imbsbrück Hofkirche, but restrained and, with all its quaintness, extremely modern. The skirt reminds us, too, of that in the beautiful, rarely noticed statue of Queen Anne, in Queen Anne's Gate.

In his distinctly decorative work Sir George Frampton is at his happiest. His prolific fancy finds new things to do at every turn. In the "Memorial Tablet to Mr. Charles Mitchell," in St. George's Church, at Jesmond (near Newcastle), he sounded a new note and displayed some of the more striking general features of his design. We see how he escapes from purely architectural forms (pediments and mouldings), introducing his own inventions or reinventions of curved lines, and frequently substituting tree-forms for columns or pilasters, with roots for bases, trunks for pillars, branches and foliage for capitals. Every detail merits attention in this original composition, which, however, in its design seems to me to have a good deal more affinity with the work of the woodworker than with that of the sculptor. The monument of Queen Victoria at Leeds is extraordinarily novel and successful as a mass, and reveals the good effect of collaboration between sculptor and architect. Frampton has great powers as a designer and hardly less as a modeller, although he does not allow his technique to intrude upon the eye. His work is quiet, broad, and dignified, with good "spacing-out" and with undecorated surfaces which are as valuable as the ornamental ones. This contrast of richness and simplicity is at the very root of effect in ornament. A statue, like a woman, decorated all over, is not decorated at all.

Suave and sympathetic in his view of art, Mr. Alfred Drury seeks the graceful, the placid, and the harmonious, and cares little for vigour, passion, or anatomical display. He attunes his art, like his own sweet tenor voice, to the sound of the lute.

The "Age of Innocence" is a noteworthy example of Mr. Drury's later style (since he abandoned that of his master, Dalou), a head of beauty and charm belonging to the higher order of conception which he has since sought to maintain. It is a very agreeable study of childhood, and good also from a decorative point of view. It should always be remembered that one test of a sculptor is his rendering of young flesh and young forms: yet the public is always more taken with the more obvious and more dramatic and infinitely easier lines and forms of old age. It is so much easier to make the marble screech than sing.

On the great scheme of decoration for the City Square at Leeds, carried out through the munificence of a private citizen, several leading sculptors were engaged. Besides Mr. Brock's "Edward the Black Prince" and the statues of Leeds worthies, a set of electric standards have been set around. For these Mr. Drury designed the colossal figure entitled "Even," so that, with a similar series of "Morn," a set of statues holding flambeaux unique in Great Britain might light the Square like those which surmount the pedestals around the Opera House in Paris. Since then Mr. Drury has carried out the series of colossal groups surmounting architectural features at the new War Office. Although they are 70 feet from the ground, they are to be recognised as fine—even noble—realisations of the glories and horrors of War—the "Triumph of Peace," and the "Reward of Fame" and "History." Dignity is the key-note of the whole conception, with broad and beautiful modelling—(I have seen them close)—and



MYSTERIARCH - SIR GEORGE F. PRAMPON, B.A. SCULPTOR

the artist has not found it easy to surpass them in plastic beauty in the great decoration he has recently completed for the new Lambeth Bridge. I have just secured to show you the two colossal figures which now stand at the sides of the Entrance to Sir Aston Webb's new vast South Kensington Museum; the first is "Inspiration," and the other "Knowledge." These show the works in the clay; and they sufficiently display their modern spirit. As an example of his purely decorative, architectural sculpture, you may look at the high-relief panel un-

covered the other day on the recently finished building by Mr. Belcher at the corner of St. James's Street and Piccadilly. The relief is somewhat forced, as there is a greatly projecting bronze balcony above it.

Mr. Pomeroy is one of the most brilliant of the younger men of to-day. His versatility is somewhat bewildering, for he can work in every style. The ideal figure of "The Spearman," excellent alike in pose and modelling, reminds us somewhat of Thornycroft or of the sentiment of Leighton. Mr. Pomeroy does what he likes and does it well, but I am not sure that he has yet shown the possibilities of his individuality and mastery. Perhaps this may fairly well be seen in the work, the commission for which he won, for the Centenary "Statue of Robert Burns" for Paisley. This he has executed with such remarkable success that when the statue was erected



ROBERT BURNS, PAISLEY. T. W. POMEROY, C.R.A., SCULPTOR.

the local critics did not carp, neither were they dissatisfied, and they were Scotch and Pomeroy English. No doubt this presentment is one of the most refined and pleasing of the numerous effigies of the poet which have been lately erected, and yet in conception and pose it powerfully recalls to me Hugoulin's "Le Repos" in the Salon of 1838.

There is a vein of poetry in much of Mr. Albert Toft's work, expressed with unmistakable individuality, as in his "Spirit of Contemplation"; there is an effort to be symmetrical, a musical harmony, an evenness of balance, and a relationship to the whole. But to my mind Mr. Toft has in the past ventured a little too close to naturalism—which he sought to discount.

as it were, by graceful arrangement or accessory. But that phase is over. The ideas he sets himself to express are of a worthy kind, as in "The Cup of Immortality"—they have something of his own "Spirit of Contemplation," and are represented with technical skill, without undue display of dexterity. Apart from his monuments, the most scholarly of all his works—the most elevated and sympathetic, excellent in line, composition, and pose—is his "Mother and Child." There can be no doubt that we have here a touch of true nobility and of sculpturesque genius.

Professor Edouard Lanteri, of the Royal College of Art, now a naturalised Briton, has produced many admirable works on his own account. That which displays in the most remarkable degree life and character is "The Fencing Master"—a figure of striking truth and vivacity, which seems ever ready to don its mask and spring *en garde*. This sort of figure is always best as a statuette. But, excellent sculptor as he is, gifted with extreme dexterity, with a cleverness which is marvellous, as a teacher he has absolutely no superior, and many of our most successful sculptors of to-day owe much to his untiring energy and interest, and to his extraordinary power in awakening enthusiasm in his pupils.

Professor Lanteri's demonstration modelling is wonderful. You may care to see how he works before the pupils. He sets up the clay, and shows how to measure off the exact position of eyebrows and the line of the nose in the sitter. Then he begins modelling, taking the orbits first, the shape of the brows, nose, nostril, mouth, jaw, and so on regarded all round, building up, bit by bit, all in the necessary order. Then he gives the characteristic pose of the model—the turn of the head—by grasping it in both hands and twisting round the clay as required. The modelling is carried farther and farther, with extraordinary certainty, brilliancy, and understanding, the actual forms, and the character and expression, being all well before the sculptor's mental eye. And then the whole is completed in an incredibly short space of time, not only lifelike, but fine and romantic—Classic in its way, and full of style, life, character, and humour.

Mr. Goscombe John, when still a student, had established a reputation for the refinement of feeling we see in his work. But he soon matured into something far higher, and far more admirable, in the austere figure of St. John the Baptist. This is the accepted type of the Precursor, such as was imagined by Donatello, by Michelozzo Michelozzi, or by the German sculptors. Lord Bute acquired it, and must be said to possess one of the best ascetic figures, in a purely sculptural sense, that have been produced in England in the present development. Compare with this the colossal effigy of the late Duke of Devonshire, now erected at Eastbourne,



ST. JOHN THE BAPTIST. W. GOSCOMBE JOHN, R.A., SCULPTOR.

and you see the wide range of Mr. John's art. This fine statue, the most important of all he has produced, has the unique distinction of having gained the Gold Medal at the Paris Salon.



MADONNA AND THE CHILD CHRIST—BERTRAM MACKENNAL, A.R.A., SCULPTOR.

I suggest that the ornament is just a little overdone, a little too obvious—to the extent that we have rather to look for the hands; but the statue is fine in character, dignified, impressive in arrangement, and might be called a noble presentment of a gentleman by a gentleman—happily not a rare quality among our sculptors, but a quality which is here very manifest.

Mr. Bertram Mackennal made his first real mark with "Circe"—realistic yet refined—"For She sitteth on a Seat in the High Places of the City," which, beautiful as it was, reminded us too much of Gérôme's "Tanagra." But he has since travelled far. His "Madonna and the Child Christ" is a lofty conception, charming in its delicate suggestion of the cross-form, and pure in sentiment. Surpassing it, as an ideal conception, is his "Diana Wounded," excelling alike in grace, delicacy, and refinement of form and of type—full of beauty and tender dignity; and it is exquisitely modelled. Mr. MacKenna's pediment for the Offices of the Local Government Board in Parliament Street, is, so far as I know, the best work of its kind in England; and there is little doubt that in the future Mr. MacKenna will take his place at the head, or very near the head, of British sculpture. His work is marked by good style, firm and telling, with a keen appreciation of the value of form and the general effect as a whole.

From Mr. Eehr we may expect more and better than we have yet had, in proportion as his rather exuberant energy and fancy do justice to his undoubted mastery of the sculptor's

craft. That exuberance of fancy and executive dexterity is to be seen in "St. George and the Rescued Maiden," in which the sentiment of the subject seems lost in the artist's enjoyment

in fashioning the knight with his armour and accessories, as contrasted with the nude figure of the girl. Indeed, the maiden seems to me to be actuated less by gratitude to her deliverer than by her pride in the performance. In spite of the manifest sincerity of the artist himself, there is a certain lack of sincerity in the treatment of the subject which he has undertaken to represent, because he is apt to overdo things. The result is a certain fussiness of decoration or of action, and a consequent absence of dignity. In "Hypnos bestowing Sleep upon the Earth" there is a more pleasing sense conveyed. It is a beautiful work, rather imposing in its sentiment, and approaching the monumental; and the figure is not without considerable grace and strength. Mr. Fehr's recent "Fallen Angel" shows both his strength and his weakness. It is powerful, full of colour, energy, and movement: but it shows also a twist of body impossible to any but a professional contortionist. Yet the work itself is sound, and good in modelling.

Most Londoners know one of the earliest of Mr. Colton's works—the "Mermaid Fountain" in Hyde Park—which was ordered from him by Her late Majesty's First Commissioner of Works of that day during an official artistic lucid interval. The "Image-Finder"—a work more serious in effort—and of greater originality, is more sculpturesque in motive than in search after grace. But I cannot help thinking that the muscular display is a little overdone—as some even of the Old Masters, such as Bandinelli, were wont to overdo it: for the display of scholarship has proved an irresistible attraction to masters of all periods. More admirable is "The Crown of Love," soberly inspired by M. Rodin. A highly accomplished composition, though appearing here a little involved as to the crossing of the limbs, it is charming in sentiment and admirable in execution. This point illustrates the Parisian flavour still to be found in some of Mr. Colton's work: but the sculptor is endowed with so strong an individuality, and is possessed of such a true power of design and sense of style, that we may regard him as among the ablest leaders of the younger men. He has not yet surpassed this work.

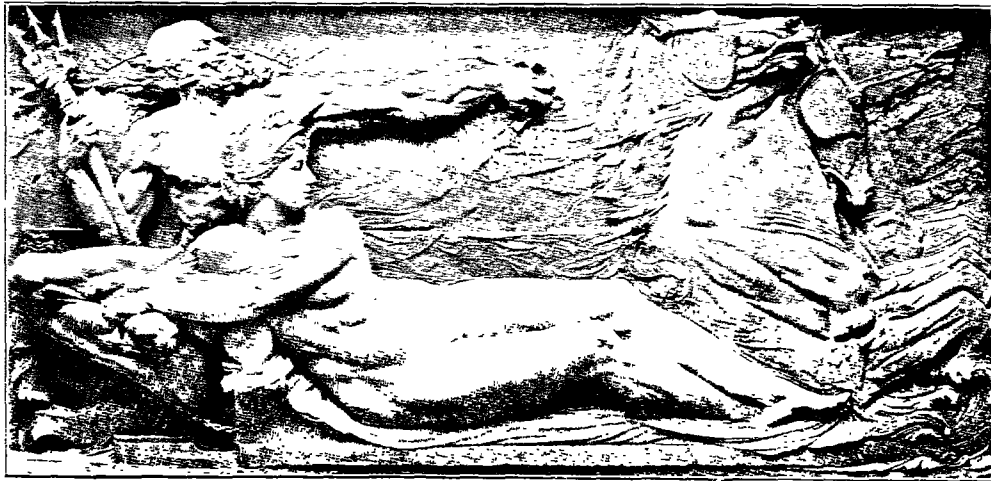
There are many other sculptors who are making a name. At first sight it appears that Mr. David McGill, when he exhibited his pleasing "Hero and Leander," was a disciple of Harry Bates. But "The Bather," though more simple, is more striking—well-modelled and of a welcome quaintness and humour, as if (to my mind) Mr. McGill had been looking at old Japanese wood-carving.

Mr. Macgillivray, of the Royal Scottish Academy, I take to be now the most able among the sculptors of Scotland. Among his many works I have selected this little bust of "A Gipsy Girl," because of its charm, its vigour, and skilful modelling, its simplicity and breadth—and, withal, its true Scottish character. At the same time, Mr. Macgillivray is most to be admired in the monuments he has had an opportunity of designing. His work takes its place as "very good," and it possesses a strong sculpture-like character, so that the general effect is excellent and well considered.

Mr. Derwent Wood harks back more or less to tradition, and aims at dignity and idealised beauty of form, and quite unusual refinement of type. There is a delightful piquancy in the head of "Atalanta"—a distinct French flavour, while the accidental resemblance in the attitude of the arms to Michelangelo's "David" is amusing. The "Psyche" of this year, dainty in pose and expression, reticent yet complete in modelling, reaches a point of elegance which he has not heretofore attained. Here is a man worthy to challenge the supremacy of Mr. MacKinnal in the near future. His work is marked by strong character and serious thought, and we are always conscious that behind the work is a *man* endowed with firmness and strength of will.

I am about to conclude. But let us glance briefly at the work of two or three of our younger men who are destined to fill, perhaps, great places in the immediate future.

First we have Mr. Albert H. Hodge, whose highly original work requires a lecture to itself, for it involves the whole theory of relief in relation to architecture. It is very remarkable in style and character. The Relief of "Science" is very low in reality—the sharpness and boldness of modelling and almost exaggeration of "under-cutting" obtaining his calculated effect in a proper light. In the high relief the detached head is not much thicker than a board, and we must ask—how would it wear in time and weather? In the Relief of "Commerce" the only piece of high relief is the man's foreshortened knee. In spite of appearances the woman's body scarcely rises above the ground. It is extremely interesting and contentious. All the while in these figures he does not allow you to think of the stone, he insists on your feeling the stone, and emphasises the flat plane and the subjection of the sculpture to the architecture.



"COMMERCE." ALBERT H. HODGE, SCULPTOR

Mr. Garbe has produced a work of real power in "The Egoist"—the personification of selfishness, headstrong and brutal, who with a happy touch and by a clever arrangement of pose like that in Falguiere's "Secret de la Tombe," has silenced the voice of the Sphinx-Conscience. The modelling is good and character striking.

It will have been observed that several of our most admirable sculptors have been trained as painters—Alfred Stevens, Mr. Swan, Lord Leighton.

But, excluding Alfred Stevens, none of all the sculptors who have been mentioned hitherto surpasses in power our greatest artist, George F. Watts, who as a sculptor claims all our respect, all our enthusiasm. His earliest self-training was in a sculptor's studio, and he brought himself up on the study of the Elgin Marbles, as he told me many a time. He found out for himself the axiom of Michelangelo which I have already quoted—that the nearer painting approaches sculpture, the better it is: the nearer sculpture approaches painting, the worse it is.

The half-a-dozen pieces of sculpture of Mr. Watts place him very high indeed among the world's finest sculptors of the nineteenth century—high among the sculptors of all times. The magnificent recumbent effigy of the Bishop Lonsdale in Lichfield Cathedral was an epoch-making work—not only in the technical matter of the bold treatment of the drapery, but in its largeness and breadth and its noble sense of style. The head is perfectly magnificent in its expression of solemn dignity. Here, it was felt at once, we have a great master: for grandeur of sentiment and of form are in this splendid figure. But the sculptor did not show his full all-round power until he produced "Hugh Lupus." In modelling for the late Duke of West-

minster this colossal statue of his great ancestor, now set up at Eaton Hall, Watts took full advantage of the freedom possible to so imaginative a composition. It may be objected that no horse can be drawing up with his front legs while dragging hard with the hind legs. This may be a blemish of fact—I am not sure; but how powerful is the animal! how fine is the air of the horseman who has just cast off his falcon! how original and sculpturesque the treatment of the clothing! and how impressive the whole composition! This monument is an extraordinarily grand and noble performance.

Following this group is the colossal "Vital Energy"—representing a youth who, having already accomplished great deeds of action, reins up his horse and looks around for more to do and overcome: thus symbolising the unconquerable energy of the young generation. The huge work, here shown incomplete in the plaster, while it was occupying so many years during which I watched its progress, is at last set up in bronze in South Africa. It was to have been erected in sight of the grave of Cecil Rhodes, in the Matoppo Hills, to symbolise for all time the mighty force of race and active civilisation. The version, not very well placed and on too low a pedestal, in Kensington Gardens, must be familiar to all my hearers.

Lastly, and I am glad to end with it, is the "Clytie," surpassed in Classic "bigness" and purity of style and feeling by little or nothing ever produced in England. For this bust is, perhaps, a more noble and complete thing than any that the artist created in painting.

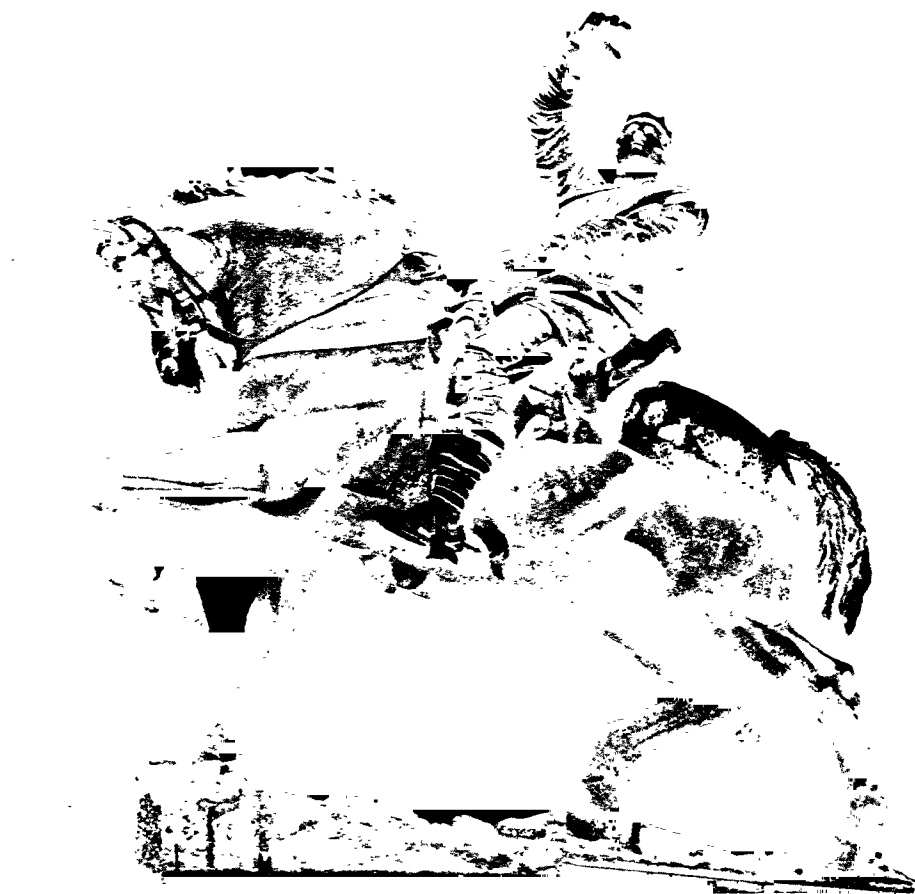


"THE EGGS!" RICHARD GARBE, SCULPTOR.

All his greatest qualities—so far as the material permits—are to be found in Watts's sculpture. There is, I think, no sculptor who has come nearer to obtaining the grandeur of form which is so wonderful in the Greek masterpieces. Grand and monumental in conception, noble in style, majestic in pose, the work of this man is a marvel among the men of to-day. Big, and simple in line, immense in character, full and rich in modelling, it is instinct with vigour, breadth, and movement. And form is specially considered, as it was considered by the Greeks.

Does not, then, the work of the grand old man—who in his eighty-seventh year was working upon one of the masterpieces of his life—the statue of Tennyson set up in Lincoln—mark for us the true standard? Does it not point out the way to those of our younger sculptors, who are too easily led astray by the dainty and the fanciful and the fashion of the

moment? Ingenuity, elegance, fancy, are fine qualities: but with all their charm they cannot rank with the dignity of a great "style," elevated conception, a severe and noble form. It is not enough to produce the "playful" and the delightful, however fine. We love Spenser and Keats, but we look to Milton. We delight in Sheridan, but we turn with passionate reverence to Shakespeare. We rejoice in Chopin, but we turn finally to Beethoven and to Wagner. And as our sculptors have for their materials the marble and the bronze which last to eternity—which cry out, therefore, for a treatment worthy of this noble destiny, this mundane immortality—they must aim at raising the spirit and sentiment of their art, and our appreciation of it, if the British School of Sculpture is to justify its promise of to-day.



HUGH LUPUS. G. F. WATTS, R.A., SCULPTOR.
(From a Photograph by F. Hollyer.)

DISCUSSION OF MR. SPIELMANN'S PAPER.

The President, Mr. ERNEST GEORGE, in the Chair.

MR. W. GOSCOMBE JOHN, R.A. [H.A.], said it was his very pleasant duty to propose a hearty vote of thanks to Mr. Spielmann. The lecture had been a great delight to them all, and must have been especially gratifying to the sculptors present. It was an uncommon thing to hear anybody lecture about sculpture, and a still more uncommon thing to hear anybody lecture about it who really understood it. Mr. Spielmann brought to bear on the problem not only sympathy and feeling, but also a special knowledge which was very rarely met with outside the technical ranks. Most arts were difficult to talk about among the uninitiated, and perhaps the most difficult of all were architecture and sculpture. So many things connected with the technique influenced the sentiment, and it was almost impossible for the outsider to know what was the result of pure technique and what was the result of sheer sentiment. In judging sculpture and architecture, that was one of the rocks upon which the average lecturer split. There were many things in Mr. Spielmann's lecture that had started a train of thought. One of the most interesting was the origin of all that had taken place in the last thirty years. Most of them felt that Lord Leighton, to speak of one man, was perhaps more responsible and had more to do with it than anyone else, and his figure of the "Athlete struggling with the Python" was really an epoch-making work, which created a great deal of enthusiasm at the time, and was still thought of with admiration.

MR. W. ROBERT COLTON, A.R.A., said he thought that sculptors as a whole were greatly in want of spokesmen. Sculpture in England for the last few years had been struggling to become a school, if he might say so, and perhaps it had hardly arrived at the time when it could walk without a nurse. Mr. Spielmann, he felt, was the only spokesman they had who really loved sculpture for sculpture's sake. He was not led away by any eccentricities in sculpture. He thought they were dangerously near having a mist coming over their intentions in sculpture. There was a curious craze of the moment for mutilation in sculpture. It was to be seen in exhibitions—in first-class exhibitions, where almost every exhibit was but a portion of a figure. Arms were to be seen almost alone, heads split into sections—every possible mutilation, in fact. One figure, which was, he believed, greatly admired, was that of a lady who appeared to have been caught on a railway line; her arms had been lost, her legs had been severed at the most unfortunate section and two moons were presented to view. All these fractions of figures were supposed to be very artistic and very fine, but of course they were simply eccentricities and were not fine work in

any way. It was a cheap way of doing sculpture, a way in which anyone could succeed, because there was no difficulty in doing a fraction of a figure. Spokesmen like Mr. Spielmann were badly wanted to point out thoroughly, as he seemed to do with the utmost affection, the beauties of sculpture. That was not to criticise in a destructive manner. Brock's "Black Prince" had been called by one of the biggest papers in London "a gilded abomination," while little pitiful things were criticised and praised. Sculpture must be criticised in a friendly spirit or it could never succeed in England. He hoped that eventually they would have more such spokesmen as Mr. Spielmann.

MR. H. H. STATHAM [F.], said he should like to support the vote of thanks to Mr. Spielmann for his most interesting Paper, and also because sculpture was the art for which he had himself the greatest passion. It seemed to him to be the most intellectual of all the arts. With regard to the progress of modern sculpture, he was old enough to remember the old rows of busts to be seen many years ago every year at the Royal Academy, like so many rows of pin-heads, realistic busts with no character at all. How different it was now; a certain number of realistic ones were to be seen, but there were many which had character—and not only character, but symbolism embodied in their accessories—and which were of a high artistic interest. He was afraid sculpture never could be a popular art perhaps in any country, but still less in England, because it was essentially an abstract art. Mr. Spielmann had referred to that early work of Mr. Colton's, the fountain near the Serpentine. He (the speaker) admired that very much, and he spoke to two or three West End people about it. They all said that it seemed to them a very queer and a very ugly thing—something quite unusual. It seemed to him that the great object of sculpture in its highest presentation was to present some abstract thought in an abstract way—the figure to be used not merely as an imitation of a figure, but to express an idea. If he might go for a moment from English to French sculpture, he might mention one most remarkable instance of that—viz. the centre group of Bartholomé's great work, the "Monument aux Morts," the group of a man and woman, with their backs to the spectator, looking into the door of a tomb. That was a most suggestive thing, and it was worth notice that it was the woman who was the strong figure; she was putting up her arm to support the man. He should never forget the impression the group made on him when it was first exhibited at the New Salon; it seemed to him a perfect poem in sculpture, and it was worth anybody's while to go to Père-la-Chaise to see the complete work now. Perhaps no part of it was equal

to those two figures, but it was a very remarkable work, as an example of poetic suggestion in sculpture. With regard to dealing with dress, it had occurred to him that completely costumed figures could be dealt with rather better in bronze than in marble; the material seemed to lend itself better to dress. Browning referred to that in the remarkable scene in "Pippa Passes," where the sculptor explains to his bride the different objects in his study. She looks at the plaster model of a Kaiser in complete armour, and he says, "Don't look at that; Better that will look when cast in bronze." He thought the sculptor was right. He had been struck with the way the French very often got over that costume difficulty in their monuments of eminent men. It was a very common fashion with them simply to place a portrait bust of the man and then to surround it with abstract figures representing the different virtues. That was done also in Mr. Gilbert's monument just inside the west door of Westminster Abbey, the monument to Fawcett, in which there was a medallion of Fawcett's head and a row of little figures beneath representing various virtues [p. 383]. That seemed to him a very happy way of escaping from what was always a difficulty in sculpture, dealing with modern dress, which was not sufficiently abstract for sculptural treatment. There was one point in the lecture in which he rather differed from Mr. Spielmann. Speaking of the connection of sculpture with architecture, he could not say that he considered the Gladstone monument was a success except as to the figure of Gladstone himself. Taking the whole thing, what he disliked in it was that the figures had no architectural connection with the centre; they stood out raggedly against the sky all round. It appeared to him that when an architectural erection was used to form the centre of a sculptural monument, there should be a distinct union in line and structure between the figures and the architectural part of the monument. There was one work of Mr. Gilbert's which was not referred to, one of his early works—and he was afraid it no longer existed, but it was one he should like to remind the meeting of. He was very much struck with it himself when he saw it; it was called "A Dream," he believed, but it was a figure of a large nude woman seated in a sort of antique chair, in a deep sleep, with an eagle with outspread wings hovering over her. It was full of poetic suggestion. He was told afterwards that it had never gone beyond clay, and that the sculptor destroyed it because of some dissatisfaction with it. He was glad to say that he had a representation of it, which he prized very much.

Mr. GOSCOMBE JOHN, referring to Mr. Statham's remark about the costume difficulty, said that sculptors were mostly agreed that the treatment indicated was a most suitable form of memorial, but committees would not have it. He had tried over and over again to do something himself in that direction, and in one case only had

been able to do it. They would have the man, the whole man and every bit of the man, frock-coat, boots, and everything. That was the reason why so many of their monuments were so deadly uninteresting.

THE PRESIDENT said he had the greatest pleasure in offering their most cordial thanks to Mr. Spielmann for his discourse that evening. It had been most enlightening to all of them, and especially to the architects present.

Mr. SPIELMANN, in responding, said that Mr. Colton had referred to young men being led away by so many of the more ephemeral movements of the day. At the opening of the Franco-British Exhibition, M. Mercie, speaking about the display of English sculpture at the Exhibition, expressed his surprise that we had anything like it. He had no idea that our English School had suddenly sprung forward to so advanced a line. M. Mercie remarked that what struck him still more than the excellence of most of our sculptures was that our younger sculptors had known how to avoid the pitfalls into which some of their cleverest young men in France had fallen. He had in his mind the plaster statue by M. Tisne, of a lady in full dress with a large straw hat, with flowers, fal-lals and lace all falling down, and to give it a kind of resemblance to poetic representation it had all been smoothed away as if the statue had been put out in heavy rain for a few weeks and then brought in. The attempt had been to transfer it from ordinary common-place realism to the poetic by the action of the rain. The gentleman to whom he thought Mr. Colton referred specially was Signor Rosso. He had carried to the extreme the practice of exhibiting small fragments of the human body for serious admiration. He was particularly pleased with his own exhibition in which an outstanding exhibit was a representation of a lady's jaw; the sculptor told them it was a lady's—anyway, it was a jaw. As regards the Gladstone memorial, he thought he had been misunderstood by Mr. Statham. He had not spoken of it with special approval or as being Mr. Thornycroft's finest work. He said it was remarkable in point of importance, not necessarily of quality. But it must be remembered that Mr. Thornycroft was faced by the particular problem which he desired to work out of having the man himself, showing his sturdiness, represented there by a firm figure, and the perturbed life he had led being represented by the accompanying figures. If he had represented only that which would be in relation to the architecture, he would necessarily have lost the whole motive he had in his mind in designing the figures. The particular work of Mr. Gilbert to which Mr. Statham referred as "The Dream," was the work which was exhibited as "The Enchanted Chair." That, he was sorry to say, had been destroyed by the artist, with a good many of his other works, which he thought were not quite up to the highest he could or might reach.

THE CHURCH OF ST. NICHOLAS, STEVENAGE, HERTS.*

By WALTER MILLARD [A.].

I HAVE undertaken to attempt a description of the structural development of this building.

That the building as it stands is the outcome of development in structural form, from something different, I have to show. Like the vast majority of our old churches this is not a structure that has come into shape, as we see it to-day, all at one time of building or according to one premeditated design. By no means. On the contrary, it proclaims itself—by unmistakable, internal evidence—as a growth, the result of a definite process of expansion and renewal of parts one after another, a process whose duration may be counted by centuries. That is to say, the fabric has a life-history of its own to be read, if we will, from the evidence afforded by the building itself. I have had no time to make investigations of documentary evidence. All I have to offer is testimony drawn from the work.

By way of presenting some of this testimony in a legible form, I have had a ground plan and a cross section of the building measured and drawn out to scale by my pupil, Mr. Herbert Russell: and on this plan and section I have hatched in various textures the different portions of the walling according to their respective dates of execution, so nearly as I can make these out. The drawings therefore become, as it were, a rough chart of the building's course through the centuries. According to this *quasi* chart we may note that the church consists of a nave of four bays, with north and south aisles; a chancel of three bays, with north and south chapels in the form of aisles to its two westernmost bays only; a west tower and a south porch. A modern south transept and a vestry complete the plan. By the hatching on the walls of these various portions of the fabric I show how I approximately date them in the following order—viz. the tower as being of early twelfth-century date, the piers of the north and south nave arcades of late twelfth-century date, the walls of the two nave aisles of early fourteenth-century date, and the chancel with its arcades and north and south chapels of the same period. The jambs of the east window of the chancel and the oak screens are almost the only features to be shaded on plan as of fifteenth-century date; but on the section we observe that, in the nave, from the necking of the pier capitals of the arcades upwards, the work is all of the fifteenth century, *i.e.* these capitals and arches together with the clerestory and roof above.

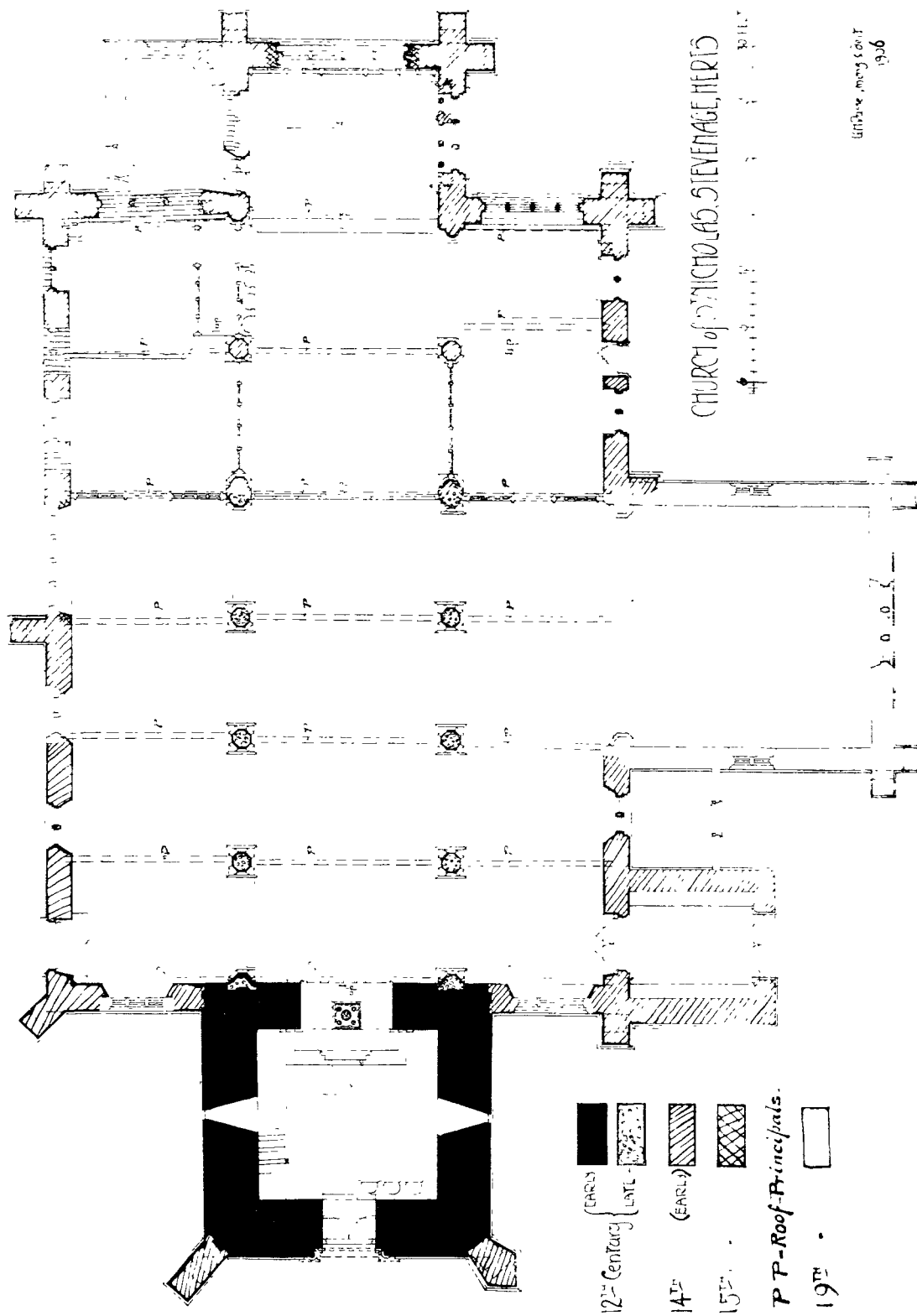
These are just a few of the salient facts to be

noted in the building—dry facts, perhaps, until they can be interpreted to some extent. Let us try to get behind them a little and make out something as to what they imply. But, first of all, I may naturally be asked for my authority in assigning the different parts of the building to these various dates. I can only say that I think I recognise in the various portions of the structure the sort of work done at each of the periods to which I venture to assign the respective pieces of building. The design of the tower and of its features, its thick walls—5 feet thick on three sides—its narrow, deep-splayed windows, its doorway and its massive arch opening to the nave, the big roll-moulding on this arch and on that of the doorway, as well as the heavy impost moulding of the former, all point to work of the first half—probably the first quarter—of the twelfth century. The base-moulding of the nave piers proclaims itself as a moulding worked before, rather than after, the expiration of the twelfth century, and the octagonal piers themselves are, in the main, evidently of the same handiwork as their bases.

The chancel arcades, with their moulded caps and bases, show forms proper to about the opening years of the fourteenth century: and with this period the design of all the original aisle windows and the aisle doorways agrees. The capitals of the nave arcade piers, the arch-moulds—with their hood-moulding—the clerestory, and the roof timbering above may all be dated some time within the fifteenth century. It is outside my subject to give a lecture on the details of our mediæval architecture for three hundred years or more in order to prove my assertions. I can only offer them for what they may be worth.

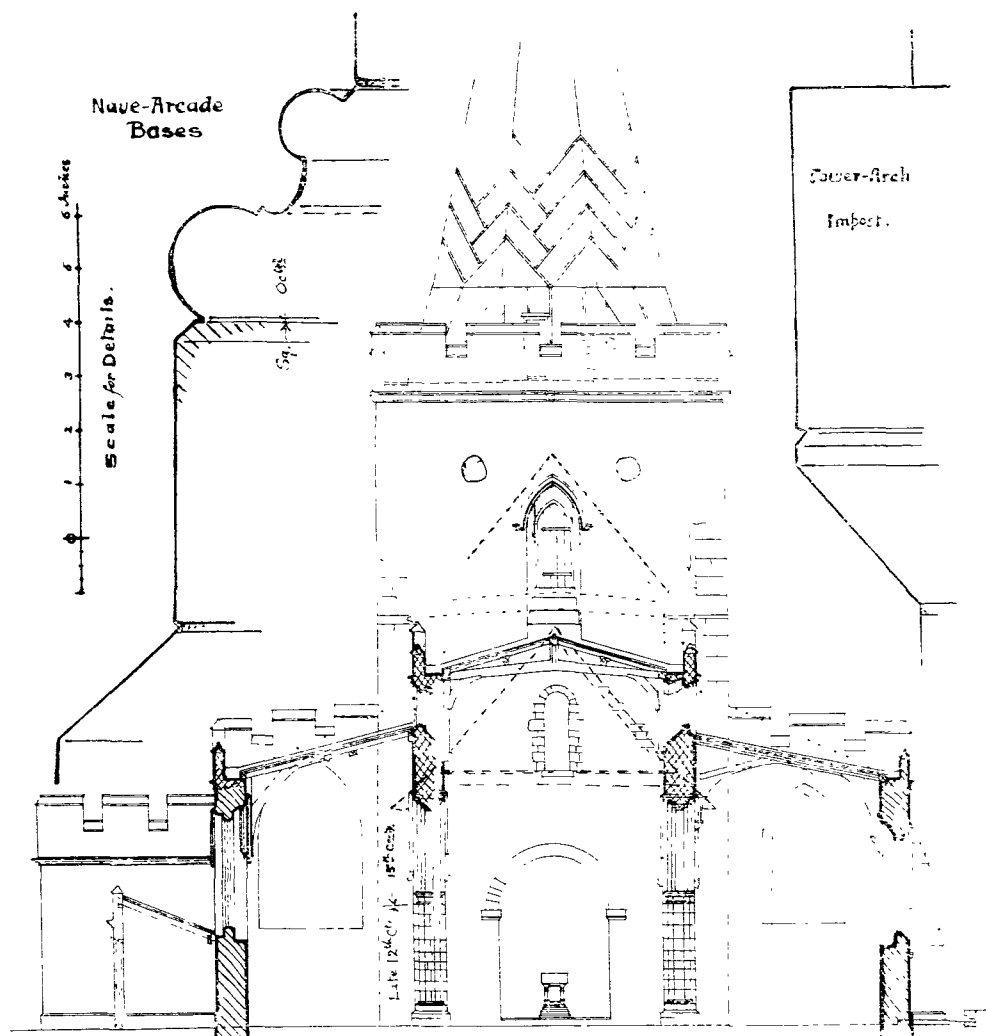
To return to the consideration of what is implied by the facts that I put forward. To begin with, we may be sure this great tower was never built to stand there all alone from early in the twelfth century until the end of that century, when the nave piers that we see were set up. When this tower was built, there must have been a nave for its arch to open into; that is, there must have been in existence here an earlier nave than the present one—a different nave, necessarily. What could such a nave have been like in form and in dimensions? Though a matter of conjecture, this is a question by no means immaterial to us in attempting to trace the story of the building. This earlier nave may be entirely gone, yet its influence may remain, materially affecting the existing work. Its length and breadth are probably represented by the main lines of the present nave, whose arcade piers might stand on the continuous foundations of the earlier walls—if this nave were an aisleless one, as it is not unlikely to have been. As to its height, I think it is possible

* The form of address adopted in this article may be explained by the fact that it consists of a Paper printed, with but slight revision, as it was delivered in the church before the East Herts. Archaeological Society, on August 30, 1906. It is reprinted by permission from the Society's Journal.



to detect on the whitewashed eastern face of the tower, inside the church, indications of roof-lines which I take to be those of the earlier nave. So that this nave, which had vanished by the end of the twelfth century, has very probably left its measure and its mark to this day. The two tower arches that

The building of these late twelfth-century arcade piers in the nave implies aisles, of course. But we may safely say that any aisles contemporary with or earlier than these piers were narrower than the aisles we now see: in other words, their outer walls must have stood inside the lines of these exist-



CHURCH of ST NICHOLAS, STEVENAGE, HERTS. Section thro' Nave.—looking West.

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Edmund Cross & Jeff
1905

once opened towards it—viz. the main arch and the narrow one from the ringing chamber above—still open eastwards on the church, which, since the day of their building, has been itself rebuilt entirely. That is one vital fact in the history of the structure which we may fairly infer from the internal evidence.

ing fourteenth-century aisle walls. We may say this, because down to the end of the twelfth century aisles were not built to a parish church of so wide a span, in proportion to that of the nave, as these fourteenth-century aisles show. Accordingly, we see the process of expansion at work here in the fourteenth century at any rate, for then these outer

walls were built; and we may be sure this was to meet requirements. The parishioners were not likely to build wider aisles than they actually needed. Returning to the end of the twelfth century: this nave, of that date, stretching eastward from the still earlier tower (yet standing) most certainly did not exist without its own eastward extension—*viz.* a chancel, to make a church of it. It is inconceivable that the church went without a chancel until the fourteenth century. What, then, was this earlier chancel like, how wide and how long? Was it the chancel of the earlier nave surviving till the fourteenth century, or was that rebuilt by the men who remodelled the nave at the end of the twelfth century? It has gone, what does its size or its date matter to us? you may say. But in history what has happened does matter as regards what follows. The existing early fourteenth-century chancel would be an expansion of any earlier one in respect of its aisles probably, and also in respect of length and width as compared with any chancel belonging to the earlier nave. What appears to be a fourteenth-century porch to the south aisle of the nave, and perhaps a fifteenth-century sacristy on the site of the present vestry, complete the outward expansion of the church on plan as it has come down to us, with the exception of the modern south transept—a further instance of the process of expansion to meet requirements. However, it was not on plan only that expansion might take place in an old church. In this instance, turning to our cross section, we see also evidence of upward expansion having taken place. I have already called attention to what I believe to be indications, on the eastern face of the tower, of the nave which must have stood to the east of this tower in the day of its completion, early in the twelfth century. Apparently the walling of the tower is of the same build right up to the cornice under the parapet—the belfry lights having been remodelled in the fifteenth century, when the present parapet was put on. Against the eastern face of this tower I make out that no less than three different nave roofs have abutted in turn, including the present one. First, that of the earlier nave, which I have indicated by dotted lines in the position it seems to have occupied. As was not uncommon in roofs of such date, this probably had a flat, boarded ceiling at the tie-beam level. The narrow, arched opening from the ringing chamber would in that case have opened into the roof-space above this ceiling. Then, early in the fourteenth century, I conjecture that they raised a high roof, enclosing under it in a similar way the fourteenth-century door-opening, higher up in the face of the tower, through which access is at present gained from the belfry itself on to the flat-pitched, lead roof of the fifteenth century now covering the nave. For the notable point about this said opening is that it presents to the outer air to-day the inside face of a doorway. Its plan, with door rebate and splayed jambs complete, is decisive on this

point. Therefore it was designed to open into a covered space, which can only have been a roof-space, just as did the opening lower down in its day. This arrangement inevitably suggests the lines of a high-pitched roof, which I have indicated by dotted lines. It, too, would thus seem to have had a flat, boarded ceiling at the tie-beam level—by no means an impossible feature even in the fourteenth century.

The existing low-pitched nave roof is, as I have said, of fifteenth-century date, as are the aisle roofs—the north one having been renewed in modern days. With the roofs go the parapets. Clearly, according to my theory of a high fourteenth-century roof, the existing nave roof and clerestory is a cutting-down of a finer design—a case of contraction, for once, in the building rather than of expansion. It looks like the result of a catastrophe. Could this have been a fire, or did the raising of such high walls and roof on the late twelfth-century arcades eventually cripple these latter so as to necessitate a reconstruction? Here documentary evidence might come in with effect. Whatever the cause may have been it was something that involved rebuilding not only the roof and clerestory, but even the arcade arches as well, as we have seen. The aisle roofs also have come down in pitch or in height, as is proved, I think, in the case of the south aisle more particularly, by the pointed arched head of its western window now rising above the line of the roof timbers. These aisle roofs have had to accommodate themselves to the fifteenth-century clerestory. With such a fourteenth-century clerestory as I have suggested they could easily have cleared the end window-heads by a slightly steeper pitch, as indicated by dotted lines.

One more roof has to be mentioned—*viz.* that covering the tower, the stately, leaded spire, of peculiarly graceful outline. Its structure is a masterpiece of timber-framing. English carpenters excelled at their craft from very early days, and this is a sample worthy of their best traditions. Whether it be of the fourteenth- or of fifteenth-century date I have not yet been able to decide definitely.

To recapitulate, we have now seen how, as it were, successive waves of building activity have passed over the edifice, each obliterating something that was here, and leaving something—something that shows what manner of building was done at the time. We have seen how the existing nave, with late twelfth-century arcades, must replace an earlier nave, and how the existing chancel, of early fourteenth-century date, must also replace an earlier one. We have noted how the nave aisles, whose outer walls are of early fourteenth-century date, necessarily represent a widening of aisles that must have belonged to the late twelfth-century arcades, whose piers remain; and, finally, we mark the rebuilding on new capitals, some time in the fifteenth century, of the nave arcade arches and of the walling above these, as well as the clerestory and all the

roofs from end to end of the church—a sweeping alteration. These are some of the evidences of development in the structure which I undertook to show. They are facts on which the history of the building hangs, the dominant fact being that the whole thing grew into its present form by degrees. To make out the order of its growth is to read something of its life-history.

These essential facts, and my conjectures founded on them, concerning the structural growth of the building are all I propose to detain you with. Numerous points of minor consequence and many matters of detail, full of interest, might be dwelt on; but they are only incidents, so to speak, in the main story. I might, for instance, enlarge on the design of features and the profiles of mouldings in the work of the various periods of building activity in the church. Particularly might I call attention to the set of oak screens of the fifteenth century still *in situ*, serving their purpose of forming the neces-

sary divisions in the church; with the exception that one length, where the organ is, has been moved across and put to screening the choir vestry, and that the main screen, the beautiful rood screen, has had all its upper portion cut down, but yet happily preserved for us to admire in the form of a reredos. The six oak stalls still left in the church, three in the chancel and three in the tower, are valuable treasures of fifteenth-century handiwork. The font I would assign to the same time as the nave arcade piers. The figure sculpture in the church, especially the effigy of the lady, apparently an early fourteenth-century piece of work, might be discussed. But all these things are really outside the scope of my Paper. What I am concerned to do is to realise as well as I can, and to help you to realise, what has chiefly happened from century to century in the course of the building's long lifetime, so that we may be better enabled to attain to a right understanding of the structure as it exists.



CHURCH OF ST. NICHOLAS, STEVENAGE, HERTS.



2 CONDUIT STREET, LONDON, W., 3RD EDITION, 1909.

CHRONICLE.

Prizes and Studentships 1910.

The pamphlet giving particulars of the Institute Prizes and Studentships for the year 1910 will shortly be in the hands of members and on sale at the Institute as usual. The subjects set for competition are as follows:—

THE ESSAY MEDAL AND TWENTY-FIVE GUINEAS, open to British subjects under the age of forty.—*Subject*: "The Treatment of Gardens in connection with Buildings."

THE MEASURED DRAWINGS MEDAL AND TEN GUINEAS, open to British subjects under the age of thirty.—Awarded for the best set of measured drawings of any important building—Classical or Mediæval—in the United Kingdom or Abroad.

THE SOANE MEDALLION AND ONE HUNDRED POUNDS, open to British subjects under the age of thirty.—*Subject*: A Memorial Theatre to Shakespeare, on an Open Site, to seat six hundred people.

THE PUGIN STUDENTSHIP: SILVER MEDAL AND FORTY POUNDS, open to members of the architectural profession (of all countries) between the ages of eighteen and twenty-five.—Founded to promote the study of the Mediæval Architecture of Great Britain and Ireland, and awarded for the best selection of drawings and testimonials.

THE GODWIN BURSARY: SILVER MEDAL AND SIXTY-FIVE POUNDS, open to members of the architectural profession without limitation of age.—Founded to promote the study of works of Modern Architecture abroad, and awarded for the best selection of practical working drawings, or other evidence of special practical knowledge, and testimonials.

THE OWEN JONES STUDENTSHIP: CERTIFICATE AND ONE HUNDRED POUNDS, open to members of the architectural profession under the age of thirty-five.—Founded to encourage the study of Architecture more particularly in respect to Ornament and Coloured Decoration. Competitors must submit testimonials, with drawings exhibiting their acquaintance with colour decoration and with the leading subjects treated of in Owen Jones's *Grammar of Ornament*.

THE TEE POIZE: CERTIFICATE AND THIRTY POUNDS, open to members of the architectural profession under the age of thirty.—*Subject*: A Design according to the Principles of Palladio, Vitruvius, Wren, or Chambers, for a Public Square with a Park Garden.

THE ARTHUR CAVES PRIZE: A SUM OF FORTY GUINEAS, open to British subjects who have passed the R.I.B.A. Final Examination at one sitting during 1908 and 1909.—Awarded for the best set of testimonials of study submitted for the Final Examination, and for studies of Classical or Renaissance, and of Mediæval Architecture.

THE GRISSELL GOLD MEDAL AND TEN GUINEAS, open to British subjects who have not been in practice more than ten years.—Founded to encourage the study of Construction. *Subject*: Design for two bays of the nave of a Parish Church designed in Reinforced Concrete, 30 feet nave and 15 feet aisles.

THE ASHPITEL PRIZE: BOOKS VALUE TEN POUNDS—Awarded to the student who distinguishes himself the most highly of all the candidates in the Institute Final Examinations 1909.

A Plea for Bath.

The threatened destruction of the colonnade on one side of the interesting old thoroughfare of Bath Street, Bath, was under consideration by the Art Standing Committee of the Institute at its meeting on the 10th ult. The scheme was being vigorously opposed by the Bath Preservation and Defence Association, and the Art Committee had before them the following resolution passed by that body:—"That the threatened destruction of a portion of Bath Street—a unique and characteristic example of eighteenth-century Bath and an integral part of the building scheme adopted for the baths about that period—calls for the active resistance of all lovers of the architecture, associations, and traditions of the city." The Committee had also before them a fully detailed statement prepared and forwarded by Mr. S. S. Reay [F.R.S.] of Bath, from which the following is extracted:—

This street was designed by Thomas Baldwin, and formed part of the building scheme included in the Bath City Improvement Act of 1789.

The first stone of the street was laid in 1791, and the importance attached to the street by the citizens of that time is clearly indicated by the translation of the Latin inscription upon the foundation-stone, which reads:—"For the honour and dignity of the City, these works were conducted by Commissioners, by Parliament appointed for its improvement, 1791. J. Horton Mayor. T. Baldwin, Architect." Baldwin was a worthy successor of the Woods. His work is perhaps not so broadly handled as that of the Woods, but it is certainly distinguished by an increased refinement of detail and delicacy of thought. The Guildhall, built in 1755-58, is a characteristic specimen of his work, and approaches in distinctness the work of Robert Adam. Considerable additions to this building were made in the most appropriate and delightful manner by the late Mr. J. M. Bridgman.

The value of Bath Street in the eyes of those interested in its preservation is determined by several considerations:

1. It forms an important and highly pleasing part of a rather distinctive architectural lay-out in the heart of the city.

2. It is highly typical of the orderly manner of street-planning associated with old Bath.

3. It possesses literary, artistic, and historic associations, and, in conjunction with the neighbouring buildings, is more suggestive of the eighteenth-century life in Bath than perhaps any other part of the city.

It is now proposed by Mr. J. W. Waring, who has acquired the Grand Pump Room Hotel, the front of which is in Staid Street, with one side to Bath Street, to remove the columns with the superstructure over, and to set back the side walls of the ground to the building. It is also intended that the existing height of the street shall be increased by several inches. This treatment is to be applied to all the houses upon the north side with the exception of Nos. 10, 11, 12, 13, and 14, which are in other hands. The scheme, as it stands, would completely destroy the uniformity of the street and it would be a scandal should the present termination in Staid Street be entirely spoiled by the orderly settlement of the whole.

The proposal has received the approval of the Council in spite of the petition signed and presented by some of the numerous representative citizens and presented by a very influential deputation headed by the Rector of Bath, who ably put forward the views of those interested in the matter. It is significant also that the Bath Chamber of Commerce also presented a memorial asking for a reconsideration of the scheme upon the ground that it might be unwise to destroy a feature of so much interest to visitors.

The Art Committee unanimously endorsed the resolution of the Bath Preservation Association, and sent a report to the Council with a recommendation urging that active steps be taken to protest against the proposal, and expressing the opinion that in view of developments in town planning the special character of such a city should be jealously guarded. On the 25th March the following letter from the President, headed "A Plea for Bath," appeared in *The Times*:—

9 Cornhill Street, W., 22nd March.

SIR,—May I trespass on your valuable space in the interests of a spot which has historic associations and is pleasant in aspect, but which is threatened with destruction?

Bath Street is part of a scheme laid out with design and dignity in Georgian days, including the Baths and the Pump Room, with their colonnaded spaces and approaches. We have few such examples of studied architectural treatment in our cities.

It is now proposed that one side of Bath Street (one side of the avenue of columns) should be removed for the greater convenience of a new hotel. By this the Corporation will obtain an increased rent for the ground: but will not their city suffer proportionately by a loss of its traditions and beauty?

Expediency and monetary considerations seem to be the leading factors in the shaping of our towns.

It is sad if in this twentieth century our ideals do not lead us to anything higher than the destruction of that which was thoughtfully and admirably done by our forefathers.

The City Council of Bath are now being petitioned by a large and influential part of their community to preserve these threatened buildings, Prebendary Boyd, the Rector, having exerted himself earnestly in this cause; and it is hoped that public opinion may influence the Council, showing them how important is the trust that they hold.—I am, Sir, yours faithfully,

ERNEST GEORGE, *President R.I.B.A.*

The Times of the 27th ult., taking the above letter as its text, lends powerful support to the "Plea" in a trenchant article headed "Bath and the Philistines." Quoting the President's remark that "we have few such examples of studied architectural treatment in our cities," the writer says:—

For that reason it is the more important that we should preserve those which we do possess, for the desire for beautiful cities in the future must be encouraged by what remains to us of beautiful building in the past. Those who have never seen a stately and well-planned street are not likely to grow impatient with the meanness and disorder of most modern streets. Indeed, the great mass of town-dwellers nowadays seem to take it for granted that streets always have consisted and always must consist of rows of houses as shabby and as diverse in their shabbiness as any row of variants in a casual ward. The conception of a street planned as a whole and composed like a picture never enters their heads, and they would consider it mere sentimentality to sacrifice any individual profit or convenience to such a plan.

But the authorities at Bath have not this excuse. They are familiar with the dignity and beauty of their city, and their familiarity seems to have ended in contempt. . . . If a monster hotel is built, the Corporation of Bath will obtain an increased rent for the ground which it will occupy, and no doubt the Corporation hold that they ought to make the best possible bargain for the citizens. Unfortunately, public bodies too often seem to assume as a matter of course that they ought to consider only the most material interests and the meanest ideas of those whom they represent. Whether or not they are Philistines themselves, they appear to regard themselves as the representatives of Philistines, and therefore as tied down to a Philistine policy. But even from the Philistine point of view, a Philistine policy is not always the best, as the people of Bath may discover to their cost if they allow this act of destruction to be committed. Bath . . . is now attracting visitors because of its charm, and it does not seem a wise policy to destroy that charm with the object of providing more accommodation for visitors. It is likely enough that, if the accommodation is provided at so great a sacrifice, the visitors will fail to make use of it.

But we could wish that it were not necessary to urge arguments of this kind whenever the beauty of our towns is threatened by destruction. The authorities of a beautiful city ought to take a pride in its beauty and ought to feel that one of their main duties is to preserve that beauty against both decay and private greed. Or public greed in a civilised city there ought to be no fear and no question. We are all agreed that in matters of sanitation the general health must not be endangered to save the pockets of the ratepayers. In that respect we have a civic conscience, but we have not yet developed one in aesthetic matters, or, rather, we have lost the conscience which our forefathers possessed. A correspondent notes that an inscription on the foundation-stone of the threatened buildings, dated March 31, 1791, states that they were erected for the honour and dignity of the city. Does anyone pretend that the proposed monster hotel will be built, if it takes

then place, with the same motive. We do not talk about the honour and dignity of our cities nowadays. If a man were to boast that he was a citizen of no mean city, we should wonder what he was vapouring about. Yet it is this kind of civic pride that has made cities beautiful in the past, so that all their inhabitants loved them and would make heroic sacrifices for them, and were emboldened and drawn together by their common love. It is time that we should ask ourselves whether we cannot recover that civic pride, and, if we despair of this, we can at least cease from destroying past monuments of it.

A largely attended meeting was held at the Assembly Rooms, Bath, on the 27th ult., for the purpose of taking steps to avert, if possible, the threatened destruction of the colonnade on one side of Bath Street. Prebendary Boyd, Rector of Bath, presided, and the speakers included Professor Beresford Pite [F.] and Mr. D. S. Maccoll, LL.D., Keeper of the National Gallery of British Art.

The Chairman read a number of communications expressing sympathy with the movement, including the following from Mr. Reginald Blomfield, A.R.A. [F.] :— "Bath is unique in England in having been to a great extent laid out on a systematic plan, in which a deliberate attempt was made by the very able Bath architects of the eighteenth century to obtain architectural dignity and beauty by well-considered perspectives and alignments. Bath Street, coming as it does in the centre of the city, is an integral and vital feature of their scheme, and to alter it in the manner proposed would inflict irreparable injury to the architecture which gives Bath its peculiar dignity and its peculiar charm."

The meeting concluded with the adoption of the following resolution, which was ordered to be sent to the Mayor of Bath and to Mr. Waring :— "That this meeting of citizens and friends of Bath strongly condemns the proposed destruction of Bath Street, a unique and characteristic example of eighteenth-century architecture and an essential part of the Bath improvement scheme of 1789, and earnestly hopes that means may be devised to avert the threatened mischief."

Professional Practice and Charges in the United States.

At the convention of the American Institute of Architects held in Washington last December various modifications were introduced into the Schedule of Professional Practice and Charges of Architects authorised by the American Institute. Perhaps the most important is the change adopted in the rate of charges for professional services. For a number of years the conventions have considered the advisability and necessity of increasing the architect's fees. The last convention in proposing that the rate of commission be increased from five per cent. to six per cent. pointed out that while the architect's remuneration had not advanced during the past forty years, the cost of production, office expenses, and draughtsmen's salaries had nearly doubled. Proper equipment requires a longer preparation and a more thorough education,

and the responsibility of the architect has been enormously increased by the requirements of the modern structure, with its engineering, mechanical, and electrical equipment. Mr. George B. Post, who took part in the discussion, considered that 7½ per cent. would be more just and adequate compensation for services under modern practice and regulations. The proposal, however, to make it six per cent. was unanimously adopted, and it now forms part of the Revised Schedule, which we print below in its integrity.

PROPOSED PRACTICE OF ARCHITECTS IN THE UNITED STATES. FROM MINUTES OF A CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS.

1. The architect's professional services consist of preliminary studies, the preparation of preliminary studies, working drawings, specifications, and scale and full size detail drawings, and of the execution of the supervision of the work, for which, except as hereinafter mentioned, the minimum charge is based upon the total cost of the work completed, six per cent.

2. Occasional working drawings to existing buildings, on monuments, fortifications, navigation and canal work, and landscape architecture, it is proper to make a charge of 10 per cent. above indicated.

3. The architect is entitled to compensation for architect's space, charged under his contract, even though not designed by him.

4. If an operation is conducted under separate contracts, rather than under a general contract, it is proper to charge a special fee in addition to the charges mentioned elsewhere in this schedule.

5. Where the architect is not otherwise notified, consultation fees for professional advice are to be paid in proportion to the importance of the questions involved and services rendered.

6. Where heating, ventilation, mechanical, structural, electrical, and sanitary problems are of such a nature as to require the services of a specialist, the owner is to pay for such services. Chemical and mechanical tests and surveys when required, are to be paid for by the owner.

7. Necessary travelling expenses are to be paid by the owner.

8. If, after a definite scheme has been approved, changes in drawings, specifications, or other documents are required by the owner, or if the architect be put to extra labour or expense by the delinquency or insolvency of a contractor, the architect shall be paid for such additional services and expense.

9. Payments to the architect are due as his work progresses in the following order: Upon completion of the preliminary studies, one-fifth of the entire fee; upon completion of specifications and general working drawings (exclusive of details), two-fifths additional, the remainder being due from time to time in proportion to the amount of service rendered. Until an actual estimate is received charges are based upon the proposed cost of the work, and payments received are on account of the entire fee.

10. In case of the abandonment or suspension of the work, the basis of settlement is to be as follows: For preliminary studies, a fee in accordance with the character and magnitude of the work; for preliminary studies, specifications, and general working drawings (exclusive of details), three-fifths of the fee for complete services.

11. The supervision of an architect has distinguished

The total cost is to be interpreted as the cost of all materials and labour necessary to complete the work, plus contractors' profit and expense, as such cost would be if all materials were new and all labour fully paid at market prices current when the work was ordered.

from the contractor's personal superintendence which may be secured by the employment of a clerk-of-the-works or superintendent of construction, and by such inspection by the architect or his deputy of work, masonry and slops, of a building or other work, process of erection, completion or alteration, as to find means to ascertain whether it is being executed in conformity with his drawings and specifications or not. He has authority to reject any part of the work which does not so conform, and to order its removal and reconstruction. He has authority to act in emergencies that may arise in the course of construction, to order necessary changes, and to direct the intent and meaning of the drawings and specifications. On operations where a clerk-of-the-works or superintendent of construction is employed, the architect shall employ such assistance at the contractor's expense.

12 Drawings, instruments or services of service, are the property of the architect.

Proposed Eastern Counties Society of Architects.

In response to an invitation issued by Mr. A. Paul MacAlister [A.] of Cambridge, a number of architects, mostly members of the Institute practising in the Eastern counties, met at the Guildhall, Cambridge, 22nd March, to discuss the desirability of forming a Society of Architects for the district. Mr. MacAlister, who was voted to the chair, reminded the meeting that the Council of the Royal Institute had many years ago suggested the formation of such a Society, and the proposition had appeared year after year in the *Kalendar*, that a Society should be established in the Eastern counties, with Cambridge for its centre, and Cambridgeshire, Huntingdonshire, Norfolk, and Suffolk for its province. When it was realised, said Mr. MacAlister, what advantages were to be gained by association—the advantages of united action brought to bear on matters concerning the profession, the advantage of better educational facilities for the younger members, the advantage of exchange of ideas to the older members, and, last but not least, the advantage of the promotion of personal acquaintance and good feeling between members—the desirability of giving effect to the proposal would appeal strongly to all. There were about a hundred practising architects in the province, of whom thirty-three were already members of the Institute, and it might be fairly assumed that there were two hundred assistants who were, or ought to be, engaged in the study of architecture. In addition to this there were a number of University students preparing for the profession who would naturally embrace such an opportunity for enlarging the scope of their studies.

In the course of the discussion which ensued, the Chairman explained that it would be impossible to form a strong Society such as they hoped for without the help and co-operation of many of the architects who were outside the Institute, and it was imperative that such desirable members should be elected in due course. But, as the movement was initiated by Institute men with a view to eventual affiliation with the Institute, it was expedient that their proceedings should be in accordance with the precedent set by other Allied Societies and with

the traditions of the Institute, and these would be best safeguarded by putting the preliminary arrangements for the Society's formation in the hands of members of the parent body.

On the motion of Mr. H. Haines [A.], seconded by Mr. H. J. Green [A.], the meeting unanimously pledged itself to support the Society and to promote its formation. A provisional Committee, consisting of the following gentlemen, was appointed to organise the promotion of the Society and to submit proposals to a future meeting:—Messrs. T. D. Atkinson [A.] (Cambridge), H. Haines [A.] (Cambridge), A. Paul MacAlister [F.] (Cambridge), S. I. Ladd (Huntingdon), J. W. Cockrell [A.] (Great Yarmouth), G. J. Skipper (Norwich), E. J. Tench [A.] (Norwich), E. T. Boardman [A.] (Norwich), H. J. Green [A.] (Norwich), H. M. Cantley [A.] (Ipswich), E. C. Shearman [A.] (Newmarket), and J. Morley (Cambridge). Mr. MacAlister was appointed hon. secretary to the Committee, and it was resolved that the next meeting of the Society should be held at Norwich.

Henry VIII's Bridge at Hampton Court.

The Times of March 26th published a long and interesting account by Mr. Ernest Law, F.S.A., of restorations carried out at Hampton Court since 1882, and of the recent excavations which have brought to light the stone bridge built by Henry VIII. over the moat leading from the Great Gateway into the Base Court. The bridge, a beautiful arched structure of four bays, 25 feet wide and 50 feet long, was found some 3 feet below the ground. The piers of the arches of the bridge are strongly buttressed on each side, the lower portion being splayed to form "cut-waters." The roof of each arch is supported by moulded ribs, a foot in width, and the arches are about 8 feet across at the spring. On the tops of the buttresses on each side of the bridge are the bases of the octagonal shafts which rose above the parapet and carried Tudor heraldic beasts bearing vanes with Henry VIII's arms and badges—as shown in the old drawings. The shafts have, however, disappeared, together with the parapet; but Mr. Law thinks it is highly probable that their broken fragments, with those of the parapet, will be found at the bottom of the moat, into which, it may be presumed, they were thrown when the parapet was removed. The outer wall of the moat, 4 feet thick and built of thin Tudor red brick at a distance of 50 feet from the main central part of the west front, has been already traced for nearly its full length of 200 feet. It cannot be doubted that it will be followed right up to the walls of the north and south wings. At these points the waters of the moat would seem to have passed under the buildings by channels or gulleys under the north wing and the "Lord Chamberlain's Court" to the other part of the moat on the north, and under the great south wing to the river on the south.

Speaking of the prospects of further discoveries, Mr. Law says:—

It is impossible to say what the clearing of the moat may not bring to light. When we remember that for two centuries, during the Tudors and Stuarts, this arched bridge over it was the main entrance to the Palace, we can imagine that many things of curiosity and interest must have been thrown or accidentally dropped into the moat during that period, where they would have lain unrecoverable in the mud. Moreover, as already stated, it was for many years the great receptacle of "rubbish" from the Palace, and under that designation would be included the stained glass battered out of the chapel windows by the Puritans, the statues and symbols of "idolatrous" worship, also torn down by them and carted away; the theatrical wardrobe and properties, the books, of plays, and such like profane and carnal things as were stored in Charles I.'s Palace. . . . The parapetted wall of the moat at Hampton Court, if properly restored—with the slender stone pinnacles, which rose above it at intervals, surmounted, like those on the bridge, with "The King's Beasts" carrying vanes, decorated with the Royal badges and initials—would have no analogy elsewhere, and would give a unique, most picturesque, and an altogether captivating appearance to this entrance.

Buildings for Earthquake Areas.

The last meeting of the Société des Ingénieurs Civils at Paris was the occasion for an interesting discussion on the question of buildings suitable for earthquake areas.

M. Espitalier gave a *résumé* of the results of observations made during the recent catastrophes in Japan, San Francisco, Chile, and Sicily. He pointed out that the use of cut stone in buildings for these countries is obviously dangerous, that the use of masonry in general, being only in a small degree homogeneous and elastic, is always attended with risk, but that its defects might be neutralised to a certain extent by the utilisation of small units in a bed of resistant mortar. On the other hand, buildings forming a completely solid and elastic whole, of wood, iron, or ferro-concrete, have, according to universal proofs, remarkable qualities of resistance.

M. Flament Hennebique, after having demonstrated the resistant qualities of ferro-concrete in cases of seismic disturbances, gave a *résumé* of observations made by one of his engineers at Messina after the catastrophe. They show that in the case of buildings partly constructed of ferro-concrete the ferro-concrete parts remained perfect even in the districts where the shocks were most severe. The ferro-concrete reservoir of 4,000 cubic mètres capacity, which supplied the town with water, suffered no ill effects. M. Hennebique showed that ferro-concrete will permit of the erection in earthquake areas of large decorative monuments, palaces, cathedrals, &c.

M. Bourbée, of Naples, proposed the following system of construction:—A layer of ferro-concrete should be placed on the ground, resting on a strong bed of sand over which the pressure of the building would be uniformly distributed. The walls and

pillars of the building would be fastened to this layer to render the floors and roofs solid, so that the whole should form a veritable monolith.

M. J. Roy proposed the use of a new material—cellulose or wood pulp, compressed and reinforced. This substance, he said, would have the advantage of being incombustible and light, the weight being only one-seventh of that of stone.

School of Civic Design, Liverpool University.

The Council of Liverpool University have appointed Mr. Stanley D. Adshead [F.] as Associate Professor of Civic Design in the University for a period of three years. This appointment has been rendered possible by the generosity of Mr. W. H. Lever, M.P. Some idea of the school it is proposed to form was given by Professor C. H. Reilly [A.] in his remarks at the Institute on Mr. Lanchester's Paper on Town Planning [JOURNAL, 20th February].

The late Alfred Henry Paget [F.].

Mr. A. H. Paget [F.], of Leicester, who died on the 14th March at the age of sixty-one, was elected Associate of the Institute in 1870 and Fellow in 1892. He was President of the Allied Society at Leicester, 1892-94, and represented that body on the Institute Council 1892-93. Mr. Paget served his articles with the late Mr. Bird, of Leicester, and was afterwards a partner in the firm of Messrs. Goddard, Paget & Catlow, of Leicester. In conjunction with the firm he carried out many important works in Leicester and the neighbourhood, notably the head office of the Leicestershire Bank and many branch offices, the churches of St. Barnabas and St. John the Baptist in Leicester, St. James's Church, London Road, and the new reading rooms, Leicester; addition of chancel and vestry, &c., with reredos and choir stalls, Christ Church, Mount Gorrel; restoration of the parish church, at Thornton, of Thornton, Bagworth, and Stanton-under-Bardon; laying out, at a cost of some £23,000, of the new cemetery, Leicester; restoration and choir stalls of Blaby parish church; and alteration and repair, and carved oak stalls, reredos, and other fittings, All Saints, Wigston Magna; the Free Public Library, Kettering; and much domestic work.

The late Sir Edward Boyle, K.C.

I see by the papers that the late Sir Edward Boyle is said to have practised as an architect. When I first knew him, some thirty years ago, he was an auctioneer and a partner in the firm of Turley & Boyle, auctioneers and surveyors, of Abchurch Lane, E.C. I do not remember him as an architect. He afterwards went to the Bar, and, having taken silk, he became the Conservative Member of Parliament for Taunton. He married a daughter of the late John Knight, who had a wedding portion of £20,000.—JOHN HEBB.

COMPETITIONS.

Competition for Concert Hall, Eastleigh.

This competition having been brought to the notice of the Competitions Committee, a letter was written to the L. & S.W. Railway pointing out that nothing was definitely stated in the Conditions as to the first premiated design being carried out, or, in the event of its being abandoned, no mention was made of the successful architect's getting any remuneration beyond the amount of the first premium.

The Engineer of the Company had an interview with the chairman and hon. secretary of the Competition Committee, at which he stated definitely that architects should consider this a competition for premiums alone, and he undertook to write to each of the competitors informing them of the fact.

Under the circumstances the Competitions Committee considered that members might take part in the competition if they thought it worth their while to compete for a premium alone, with no hope of ultimately receiving a commission in the event of their design being placed first.

SEITIMUS WARWICK.

THE LATE COLE ALFRED ADAMS.

BY the death of Mr. Cole A. Adams the architectural profession loses a strenuous worker in its service and one who was the means of initiating, and by his enthusiasm inspiring others to join with him in effecting, many of those salutary and enlightened changes which during the last twenty years have marked the history, not only of the Royal Institute of British Architects, but also of the Architectural Association.

Mr. Adams was born in 1844 at Sudbury, in Suffolk. He was originally intended for a mercantile career, and had in fact commenced work in a merchant's office, but his desire to become an architect, coupled with a distaste for the work upon which he was engaged, resulted in his throwing up his situation.

In order to carry out Mr. Adams's own wishes as to his future, he was articled to Mr. Augustus Parkyn, architect, Bournemouth. Having completed his articles, he entered the office of the late Mr. G. E. Street as improver, and subsequently went as assistant to Mr. Butterfield. After leaving Mr. Butterfield he went to Mr. R. W. Edis, in whose office he remained until commencing independent practice about 1872. The experience gained in these three offices, each different, yet each in its way invaluable to the young architect, must have proved of the highest service in training Mr. Adams for his future work.

In 1895 Mr. Adams had a severe illness which left him less able to take part in any hard work, and to some extent he dropped out of the front

rank of the workers, but his interest in the progress of his profession never flagged, although from force of circumstances he was compelled, to a great extent, to stand by and see others carry on and complete the tasks for which he had laboured and striven so hard in the days of his activity.

Although Mr. Adams has left some notable buildings to prove that he was gifted with architectural powers of no mean order, yet I venture to think that he deserves to be remembered amongst us rather by his unselfish work for the advancement and welfare of others, particularly the younger members of his craft, than by any success he may have achieved for himself. This unselfishness and sympathy for others was the keynote of Mr. Adams's life, not only his professional but also his private life. With his striking personality, courtly manners, graceful and fluent speech, and above all his keen sense of humour, Mr. Adams was a striking figure in any assembly. Few men have been better known, or rejoiced in a wider circle of friends, than Mr. Adams, a circle not confined to his own profession, but embracing all classes.

It was in the 'seventies that I first became acquainted with Mr. Adams—the commencement of a friendship continued up to his death. I was a constant visitor at his chambers near Victoria, and took part in his cheery "at homes," meeting there all sorts and conditions of men, but chiefly members of our own profession. It was about this time that, although not a competing architect, Mr. Adams, in conjunction with Mr. (now Sir) Aston Webb, started the movement for the employment of an assessor in all public architectural competitions. At the expense of a vast amount of time and labour, he obtained the adhesion of the majority of the profession to the movement. This good work was not thrown away, but is now excellently carried on by the Institute in its measures dealing with competitions. About the same time he also started a society called the British Architectural Book Society, consisting of twelve members, architects in practice, organised for the purchase and circulation of professional books, and for mutual intercourse. Some distinguished men passed through this society, two of whom have since occupied the Presidential chair at the Institute. There were monthly meetings of the members, and once a year an excursion to some place of architectural interest. All the management and work of this society devolved upon Mr. Adams, and no member can ever forget how well he fulfilled his part. This society flourished for about ten years, but as time went on, bringing with it other interests and increased responsibilities to the members, it became advisable to bring it to a close.

In 1874 Mr. Adams was elected Associate, and in 1880 Fellow of the Royal Institute of British Architects, subsequently becoming a member of the Council. In 1880 he joined the Architectural

Association, of which he was elected President for two successive years. For fifteen years he took an active part in the work of both these bodies.

R. C. MURRAY, Esq.

Mr. ROBERT E. CROSSLAND, Esq., an old friend and assistant of Mr. Adams, has kindly contributed the following notes:—

It was in 1874 that I first knew Mr. Cole A. Adams, when I entered his office as an assistant, and for nearly eleven years was closely associated with him. From the first day I was greatly charmed with the geniality and courtesy of his character, and this bore the test of subsequent years, for during the whole period I was with him I cannot recall a single harsh or cross word spoken to myself as an assistant. In 1874 he was just completing his first commission of any importance—some extensive additions to a country house at Waterbury, Berks, known as "Hillside." This was illustrated in the *Building News*, 18th April, 1873.

His next commission was for a large house called "Bray Court," near Maidenhead. This was carried out without the intervention of the usual contractor. At that time Mr. Adams was striving to secure an exceptionally high standard of workmanship, and fearing he could not obtain this under the stress of competitive tendering he persuaded his client to become his own builder. A competent foreman was engaged, who ordered materials and managed the men, whilst we kept all accounts in the office. Undoubtedly a very high standard was secured, but I am afraid the cost was also high. Mr. Adams, however, was apparently pleased with the method, for in his next commission, for a much larger mansion near Redhill, illustrated in the *Building News* for February 2, 1877, he proposed to adopt the same plan. After the working drawings had all been prepared, a foreman engaged, and sundry materials purchased, this scheme fell through owing to the illness of the client. This naturally caused Mr. Adams much disappointment. Within the course of the next few years he designed other houses both in London and the provinces, but in all these later instances, so far as I am aware, a contractor was engaged.

All Mr. Adams's commissions were most thoroughly and conscientiously carried out. He went personally into every minute detail: the course of no single flue was left to chance, the position of doors, fireplaces, beds, and furniture all being carefully thought out so as to secure satisfactory results. His supervision of work as executed was very strict. In the early days of his practice he used to insist on seeing every piece of joinery before it was primed so that no coats of paint might hide its sins.

Mr. Adams was also very fond of helping practically to execute his own decorative designs. At Bray Court a considerable amount of stucco and plaster decoration was introduced, and he worked much on this himself. In colour-decoration, too, he would

often mix the tints which he wished the workmen to use.

In the next few years of his professional life he entered into a few open competitions, but does not seem subsequently to have taken much part in them. His ideas of professional integrity and dignity were very high, and anything like advertising or unduly pushing his own interests at a meeting professional's expense was scorned by him. His loss will be keenly felt by those who knew him best, for one feels that Mr. Adams was just the type of architect who deserved to be lionised by his fellow-workers.

AMERICAN ARCHITECTURE, p. 325.

From EDWARD W. HUDSON, Esq.—

The title of Mr. Swales's Paper assumes that there is something more than building in America. This admits of discussion to have, but forty years ago it was otherwise. The subject might then have been dealt with in a chapter as short as that on "Snakes in Iceland." Much water has run under the bridges since forty-two years ago. Mr. W. R. Ware, a young Bostonian, during a visit to England read a Paper before our Institute, "*On the Condition of Architecture and Art in England and the United States*." Since then he has become a leader, as Professor Ware, late of Columbia University, and our H.C.M. Then he came to learn from the rich stores of art in our own land, and he did little more than describe how frame-houses were built, and indicate the beginnings of a scheme for education. It was but twenty years then since Upjohn had given them the first specimen of orthodox Gothic in New York, the admiration of all his contemporaries.

Only a year later another Paper was read by Mr. G. Wheeler on "*Poverty and Disease in England and America*." He enunciated the opinion that the comfort of the American dwelling was superior to that found in England. He certainly gave a few instances, and his opinion, I need not say, is that held to-day on this and other matters.

But a great change came over the land soon after, and now large, fine, and costly buildings, beyond anything we can carry out in point of cost, proclaim the growing richness of the country provided by the development of its immense resources rather than by the "cuteness" of its people. The camera and the pen have made this evident, and the wealth which architects have to crystallise for their prosperous clients is clearly shown by the churches, public buildings, offices, and dwellings springing up all over the vast continent. The number of draughtsmen—nearly all of them clever designers and architects—employed in one office and the salaries they receive may well fill us with envy. But after surveying these later buildings during even a prolonged visit one may fairly ask, "Is there any American Architecture?" In point of architectural

education, notwithstanding our compatriot Sir C. Purlton Clark's opinion that they had "done more in a few years than we in England had in fifty," they still choose the Beaux-Arts of Paris as their Mecca. I note, from Mr. Russell Sturgis's Paper, read before the Architectural Association two years ago, that it is realised that even this is not as good as they might manage at home, and England, of course, has nothing now to teach them. Moreover, one of their leaders has told us that we have failed to grasp the leading *idea* of refinement which characterised the work of our forefathers in our splendid medieval buildings. Another, that Americans *fail* in decorative work.

But as to the agent *domus* practised in great cities, let the Professor of a New York University speak. In a lecture to the students in 1890 he is reported to have said:—

"Never were there such varieties of brick, tile, terra-cotta, stained glass, ceramic glaze, dressing of leather, treatment of plaster, &c., and the like, as to-day. In their development American artists and makers may fairly be said to have taken the lead of Hiram! from the students. There is a certain artificiality about the modern work that makes one take less pleasure in it than in the originals. One is apt to consider the copying of historic style rather than the true style characteristic of the building. Take, for instance, modern office building in New York City. *One gets a series of bits of style imitated from old buildings, and is apt to say it is no style, but rather a conscious eclecticism*; but there is a style to the building. There are certain undeniable characteristics which denote the style of the building."

The italics are mine, and in them it seems to me that the Professor describes the characteristics pretty accurately, except that in many cases "copying" is to be substituted for "imitation." On the whole, we may accept the dictum.

There are of course exceptions, and it would be unfair not to admit that there is most conscientious work to show since the Professor's criticism of his compeers' work was delivered, but even in cases where details are excellent the nature of construction and the materials used make shams of the work.

M. Rey of Paris, indeed, who made a short visit to New York in relation to the housing of artisans, was complimentary as to the work he saw, but the French-like imitations naturally pleased him.

Mr. Gutzon Borglum, the eminent sculptor, himself an American, has on the contrary spoken with no uncertain voice against what he considers the copying of European work and want of originality in architects' designs over here.

Matters are in a transition stage, and it may be that copyism (meeting the national demand for "rush" work) gives better results than attempting imitation. It wants a stretch of fancy, as a rule anyway, to say it is "American Architecture," with a capital A. Europe is ransacked for "bits." The

Parthenon, the Erechtheum, the Louvre, Hôtels de Ville, Gothic and Romanesque churches, François I^{er} châteaux, Dutch and Georgian houses, away down to the latest English bungalows—all yield their features for orthodox *motifs*, or an *olla podrida*, *melange*, or *reclouffé*.

Only a faint idea, however, of the costliness and elaboration of buildings erected during the present decade can be obtained from the magazines, or the later Papers read before the Institute. No sooner has a costly building been completed by one syndicate or company than a rival plans to outdo it. This form of advertising prosperity (real or affected) seems to be more advantageous than the public Press columns. Their design and almost regal appointments, to my mind, rarely express the purpose of their erection, inside or out, because they are many of them more or less imitations of a grandiose ancient building erected for a different object in a different climate. Leading architects have the most expensive books, photos, &c., in a library attached to their office. By specimens selected from these the score or more draughtsmen draw inspiration (or something more), and, as "Celerity" may be taken as the office motto, the parts are divided up for many hands—hence, originality and congruity, giving a harmonious result, have to go by the board. There is no time to study plastic models conjointly for ornament. The contractor gets a rough sketch, and his modeller submits his idea for approval. In some offices, literal adherence to precedent by draughtsmen is a *sine qua non* for employment.

Other difficulties arise from the height required for city buildings where any Classic orders are useful. Start a twenty or thirty story office building with a banker's on the ground floor. The flank of the Parthenon may serve for the latter; on the next story Ionic pilaster treatment, with a cornice; then you must top it with fifteen or twenty plain stories, with square holes for windows, because you want Corinthian, composite, and attic for the skylight to identify and emphasise your buildings from afar. Your walls, being only casing, are not able to support a cornice, which is made of iron plate, or copper stamped with scrolls, swags, dentils, &c., hung on with brackets, the whole painted to look like stone! Still, your building has risen with "celerity," and your rentals begin. What more do you want or expect?

As regards skill in construction generally, expédients invented to surmount the various requirements entailed by tall buildings of 350 to 700 feet, American engineers seem to me to take first place, and I believe that branch of technical instruction is in advance of our own present position. It has been forced upon the Americans, and they have risen to the need. It is barely twenty years since solid masonry began to give place to skeleton framework curtained with thin walls, and to-day a civil engineer lays out this framework complete before the architect applies the covering and part of the internals; for the

machinist is as necessary as the civil engineer, and it is by the combined working of these and others, with the architect, that the building is completed.

Want of harmony between exterior and interior is noticeable in many cases in civil and ecclesiastical buildings—more often, perhaps, in the latter. I have seen some really good Gothic exteriors, so far as masonry goes, which internally were finished with very poor detail, tracery of wood, &c., many sham features in columns and arches doing nothing structural: or possibly with a fifteenth-century type externally, the interior would be poor modern Italian imitated. Meaningless heraldic shams on shield or cartouche are seen here and there on façades. After the national "coat," the only thing available is the *fleur-de-lis* (typical it may be of the French aid in the Revolution), but there is so much of both that they become monotonous.

What the American architect has to fear is that his best effort may be torn down in his lifetime to give place to a taller and more costly structure in a city like New York. Every little scrap of ground is being squeezed to its limit. Within two years some fine solid buildings in Lower Broadway have been destroyed because ten more stories could not be added on top. Richard Hunt's Iron Exchange, solid as a fortress, is gone: his Lenox Library, the best neo-Greek building in the city, is doomed for a steel king's palace. The Presbyterian Hospital is to be moved to a cheaper site, and so on. From all this—the dollar is the idea. After all, is it worth while to strive after high art and the best of design? The poor "Lamp of Truth" of Ruskin lacks oil in England: in the U.S.A. it is extinguished under piles of granite, marble, and bronze.

How long will the old churchyard around Trinity Church be respected? There, in the nucleus of the city, the emblems of mortality confront the speculator from the old stones. But what millions of building value they monopolise on such a site! *Facilis descensus Avernus!*

New York: 4th March 1909.

From Mr. FRANCIS S. SWALLS, to whom an advance proof of the above had been submitted—

As everything is relative and depends upon the point of view, much may, doubtless, be said in support of the inferences to be drawn from the interesting communication from Mr. Edward Hudson, which has for its apparent object contention against the assumption that there is any such thing as American Architecture—the title, in part, of my Paper recently read before this Institute—or that, at its best, it is anything more than a *melange* or *rechange*; that architectural works in the United States are, "more or less, imitations of grandiose ancient buildings erected for a different object in a different climate," and to tell you how things are actually done as distinct from how I might endeavour to lead you to believe—for it

must be borne in mind that Mr. Hudson's article was written while I was preparing my Paper. There is much which may be said for his argument, provided that we accept as "architecture" all that is produced by self-styled "architects," and select from the lot, as Mr. Hudson has done, work that is well below the average. I think, if Mr. Hudson had seen the work shown on the screen when I read my Paper, he would agree that it was both the work of architects—as I shall define the word—and American in the sense that the national distinction is generally understood.

According to my understanding of what Mr. Hudson calls "Architecture in America" it is neither *architecture* in the result, nor are the methods of obtaining that result peculiarly *American*, for the same methods are, I am sorry to have to affirm, those of like people in at least seven important countries of which I have personal knowledge: but in no country that I know of, the United States in particular, are they the methods of *architects*, whether "representative" or the less fortunate and much-abused "ordinary run." May I define, according to my lights, certain professions connected with building, to make clear differences between architecture and the allied arts and trades which have become very distinct in modern civilisation, which it seems to me Mr. Hudson sweeps together and refers to as "architecture," or, to be more specific, insinuates are representative of the work and methods of American architects?

A *Builder* is one who builds: he is a good builder if he builds in a strong and workmanlike manner.

An *Engineer* is one who builds strongly, economically, and for absolute needs.

An *Architect* is one who builds strongly, economically, scientifically, with thought to present and probable needs, and who professes to build *beautifully* and appropriately in such a manner as to indicate something of the aspirations and enlightenment of the people of his times and country. He must, therefore, be capable of conceiving and expressing an ideal, hence, an *artist*.

A *Sculptor* is one who designs and executes part of the beautiful work, and is an artist concerned principally with form—he works in detail.

An *Artist-painter* is one who designs and executes part of the beautiful work, and is concerned principally with colour—his work is also detail.

The person who forms a limited company to imitate all of these things (and usually imitates them badly) is generally known as a "Decorator"—and he sometimes is a furniture dealer or a "general provider" as well, and his methods are not unlike those described by Mr. Hudson—it matters little whether his shop is in New York, Toronto, London, Paris, Berlin, Rome, or elsewhere.

I think I make it clear that Mr. Hudson and myself do not regard architecture or architects from quite the same point of view, and I quite admit

that his is the broader, more general, and—I think unfortunately—the view taken by the amateur and the bulk of the public—the public which we architects think needs educating. It is true, however, that among men describing themselves as “architects” similar methods are pursued, but it is not true to suggest that such men are the leaders or men of good standing in the profession in the United States, any more than it would be to describe exactly similar people similarly as regards England or France, nor to describe their ways of “doing business” as the current professional or artistic practice in these countries.

To come to an examination of Mr. Hudson's letter, I pass over the first two paragraphs, which deal with the ephemeral and the past, and come to his question, “Is there any American Architecture?” and I say emphatically that there is, and that a few examples are to be found dating back one hundred years or more, such as the New York City Hall and the older portions of the Capitol at Washington. Comparisons, except when something of value is to be drawn from them, are as odious today as ever, and more so when they are made between the people of England and America: and I fail to see that any good can come of quoting Sir Caspar Purdon Clarke's statement—which was probably made after dinner—or suggesting that “England, of course, has nothing new to teach them”—(the Americans). I feel that this is a particularly misleading statement, for I am sure that in no other country are English architects esteemed so highly as among their American *confères* in the United States; but, of course, I am referring to those architects who would come within my definition of what an architect is. It is not to be expected that every architect who takes it upon himself to represent the land of Ernest George, John Belcher, Ernest Newton, E. J. May, R. S. Lorimer, Mervyn Macartney, John W. Simpson, Leonard Stokes, E. A. Rickards, and the others of their class, will find himself accepted as a prophet on their account.

To quote a lecture delivered nineteen years ago to students in an American university is somewhat like quoting the opinions of a professor of the early Victorian period upon the modern architecture of England. But even as regards this lecture, has it been quoted fairly? I call attention to the paragraph which Mr. Hudson has given partly in italics, and which refers to buildings erected some twenty years ago—a phase to which I called attention in my Paper. He has put in italics the statement that refers to details and ornament—the province of the, then almost unobtainable, sculptor; and in ordinary type that which refers to the architecture. The statement of the professor is quite clear, true, and not at all damaging to American architecture—it might be applied with equal truth to the best works of the Early Renaissance in England, or even to those of Jones and Wren. In his next paragraph Mr. Hudson betrays two curious

characteristics often detectable in the writings upon architecture of a type of travelling critic; first, they go abroad, not for the purpose of studying the comparative values, results obtained in different countries, but only to gather corroborative evidence to support their own preconceived theories upon the subject. Secondly, they have a wholly false conception of the conditions which maintain in American architects' offices. The transition stage from architecture in America to American architecture was passed between the years 1892 and 1896; since then it has developed and grown strong amidst the work of all sorts of foreigners who have gone into the country to build their “bits” “from Europe,” which they probably “ransacked” from the Parthenon to the Indian—not “latest English”—bungalow, before they left. Dutch houses have existed since the days when New York was New Amsterdam, and “Georgian” houses—which were the English imitation of the Dutch—were in existence in a few places in the colonies at least ten years before King Charles was beheaded. The only “imitation” I have seen “of the Louvre” is in Liverpool; of “the Erechtheum” the church known as “St. Pancras.” Houses “in the style of Francois 1st” are to be found in Berkeley Square, Piccadilly, and the Embankment; and the building of the City of London Schools is not unlike certain “Hôtels de Ville,” though each possesses a distinctively English character, just as the American work of about the same period does an American character; and some of the buildings, the offices of the Board of Education for instance, by Bodley and Garner, are among the most beautiful works of modern English architecture. I do not believe that a single instance can be given of a “Romanesque” church built within the past ten years, and very few during the past twenty. “Gothic” for Anglican churches, designed in a scholarly way, is traditional with the sect, and vigorous and original compositions, well adapted to modern conditions, have been carried out in this style, in some cases by architects who received their early training in England.

There remains to answer the question of the accuracy of Mr. Hudson's statements as to the workings of an American office. I have some slight knowledge of most of the large offices, an intimate knowledge of some of them, and practical experience with a few. Work is carried on with system and celerity, but more time is given as a rule to the *study* of the *parti*—scheme of composition—than would be the case in this country. This is usually sketched by the responsible architect himself, though sometimes by a leading draughtsman known as a designer, a highly-trained and experienced architect usually, the equal of his chief and a man whose tastes and views are similar. The designer is always in the office, and acts either as office manager, head draughtsman, or one of a number of head draughtsmen, each of

whom has under his control a certain number of assistants. The preliminary sketches and studies are worked out by the designer, who outlines the composition and draws each feature and one or two bays of a running *motif*; duplicating is carried on by an assistant; and when one study has been completed and reworked, another is made correcting, revising, and improving certain of the masses, proportions, and placing of ornament. I have known as many as forty such drawings to be made of a single plan in an important competition. As each drawing is completed it is criticised by the architect and often also by two or three other designers, none of whom hesitates to express his own opinion freely. When the scheme is settled the designer gives the several plans to his personal assistants to set out—usually at a small scale— $\frac{1}{2}$ inch or $\frac{3}{4}$ inch, and the study of proportions, colour-values, and scale is then begun: when the architect is satisfied that these are right the working drawings are proceeded with. These—at the $\frac{1}{4}$ inch scale—being of a mechanical nature (with the exception of the ornamental work)—are pressed forward with all speed by draughtsmen who are not supposed to be artists but only good workmen. The position of steel columns is settled by the designer who understands the engineering work, but who very seldom actually designs or calculates it, and practically never details it. He also indicates the position and type of arrangements for plumbing, heating, ventilating, and lighting. Several sets of prints by hectograph are prepared, and on these the steel-works and the mechanical plant are each laid out by *engineers in the employ, and under the personal direction of the architects*. These engineers work as *draftsmen in the architect's office*. Copies of the engineering drawings—except machinery—are usually made by hectograph process. While the engineering work is proceeding the details at the scale of $\frac{1}{4}$ inch to the foot for external work, and $1\frac{1}{2}$ inch to the foot for interiors, is carried on by the designer, who does practically all of the studying of details, under, of course, the criticism of the architect.

Architectural ornament is drawn by the assistants under the criticism of architect and designer. These drawings are highly finished and often shaded with the brush, and everything is so completely detailed that an ordinary skilled workman could execute it without the assistance of a model, though the model is almost invariably supplied. When the ornament is one of importance, such as a cartouche, with figures, relief panel, &c., the model is usually made by the best sculptor obtainable, whose clay sketches are criticised by either the architect or designer, or both. In some cases I have known the designer to do a good share of the modelling of an important piece, leaving only the finish and detail to the sculptor.

Mr. Hudson is very complimentary to American engineers, and, generally speaking, they are a very thorough set of men and deserving of great

credit for the skill displayed in their work. It is just possible that in the five years which I have been on this side of the Atlantic things have so changed that, in certain classes of buildings, "a civil engineer lays out this framework complete before the architect applies the covering and part of the materials," but in the twelve years of my American experience I never heard of such a thing, and I am sure that it is neither commonly nor frequently done for any class of building—even to-day. In this connection it may not be amiss to remind your members that the steel-frame building is the invention of, and has been developed by, men who are by profession *architects*, not engineers. The work of the engineers has been merely to amplify and detail the ideas and schemes supplied by American architects.

As to Mr. Hudson's concluding paragraph upon "what the American architect has to fear"—may I suggest that he does not "fear" his best efforts of twenty years ago may be destroyed—he earnestly *hopes they will be*—long enough before he tries to give him another opportunity, and that there are innumerable good architects in this and other European countries who would be delighted if some of their early efforts would be similarly placed or destroyed? Hunt if he were living would probably not feel any remorse over the passing of structures mentioned. The removal of the Presbyterian Hospital is likely to be for the purpose of obtaining a site in a less congested district; and, although New York is in some respects the most commercial city in the world, "the dollar" is distinctly *not* "the idea" to the extent that some would have us believe.

MINUTES. XI.

At the Eleventh General Meeting of the Session 1908-09 held Monday, 29th March, 1909, at 8 p.m. Present, Mr. Ernest George, *President*, at the Chair, 40 Fellows (including 15 members of the Council), 36 Associates (including 1 member of the Council & 3 Hon. Associates), and numerous visitors. The Minutes of the Meeting held 15th March (p. 372) were taken as read and signed as correct.

The deceased was announced as Alfred Henry Paget, of Leicester, Assn. 1870, *Ex Off.* 1892.

The following Associates, attending for the first time since their election, were formally admitted by the President: Alfred Claude Burlingham, George Reginald Fenwick, John Myrtle Smith, and Arthur Wilson Stobbs.

Mr. Marion H. Spedding, F.S.A., having delivered a lecture illustrated by lantern slides on BRITISH SCULPTURE OF TODAY, a discussion ensued, and a vote of thanks was passed to him by acclamation.

The proceedings closed, and the Meeting separated at 10.15 p.m.



I.C.C. COTTAGES ON THE TOTTENHAM ESTATE.

THE ARCHITECTURAL WORK OF THE LONDON COUNTY COUNCIL.

By W. E. RILEY [F.], R.B.A., M.Inst.C.E.

SUPERINTENDING ARCHITECT OF METROPOLITAN BUILDINGS AND ARCHITECT OF THE LONDON COUNTY COUNCIL.

Read before the Royal Institute of British Architects, Monday, 19th April 1909.

I WELCOME this opportunity of laying before the Institute some general view of what is comprised within the title given to this paper. Many people appear to think that an hour's talk on the various phases of working-class dwellings and the successful planning and construction of fire-brigade stations would constitute the backbone of all that need be said, but I feel confident that this audience will appreciate the inadequacy of such a limited view of the question.

At the London County Council there are thirteen main Committees which deal with constructional works, these main Committees being divided into 35 Sub-Committees for purposes of detail. I think it is manifestly impossible that in the time at my disposal I can deal adequately with all the ramifications of this part of the Council's operations, which range in scope from the construction of one of the largest generating stations ever erected in the British Isles, to a three-roomed cottage, or a structure of even less importance.

I will not therefore attempt to go through the details of the whole of the architectural work which has come within my experience during the ten years I have held office under the London County Council, but will indicate only the salient features of the more important items. As an instance of what I do not propose to deal with, I would refer to a large Inebriates' Home, in the consideration of which there was no precedent in the country to work upon. The building, moreover, had to be put up at short notice, and much careful thought had necessarily to be given to the development of the scheme. The settlement is a complete one, and as it is probable that very few architects will ever be called upon to deal professionally with such an

institution, I have preferred to invite your attention to the consideration of other questions of a more public character, and to confine my remarks to structural works, which may be grouped under the following heads :—

1. Housing of the Working Classes.
2. Electricity Buildings.
3. Special Educational Establishments.
4. Fire Brigade Stations.

I propose also to deal briefly with the subject so far as it concerns —

5. Street Improvements, including the architectural treatment of building schemes connected therewith.
6. Bridges, &c.

Before going further I think it only fair to myself to say that, apart from the pressure of statutory duties, the expenditure of time and the constant strain involved in carrying on the extensive programme of work with which I am about to deal, have not left me sufficient leisure and energy to do as full justice to the subject as I should have wished, especially in view of the honour which has been accorded me of being invited to address the members of the Royal Institute of British Architects on this occasion.

HOUSING OF THE WORKING CLASSES.

Housing Schemes are framed under the Housing of the Working Classes Act 1890, with its amendments of 1894, 1900, and 1903, and are carried out under the three sub-heads Parts I. II. and III. of the principal Act.

Part I. of the Act deals with large clearance schemes which entail an obligation to rehouse the persons displaced. These schemes are carried out by the "local authority," which, for the County of London, is the London County Council. Part II. is the diminutive operation on the lines of Part I., and the Borough Councils as well as the County Councils are empowered to act. Part III. permits voluntary action on the part of all the local authorities, including the Borough and City Councils as well as the London County Council. The Local Government Board, under the amendment of the Act dated 1903, became the confirming authority for all operations under the Housing Acts. In addition to the Housing of the Working Classes Acts under which powers are prescribed, large displacements arise under special Acts of Parliament. These entail rehousing obligations based practically on the same procedure as under the Housing Acts.

Prior to the passing of the Housing Act of 1890 the Metropolitan Board of Works had initiated and carried out clearance schemes which displaced over 21,000 persons, and they had provided accommodation in new dwellings for over 27,000. The cleared sites had been sold—earmarked for Working Class Dwellings—to Industrial Companies and private persons. The Board also had initiated other clearances displacing over 6,000 persons, but the completion of these schemes was carried out by the County Council.

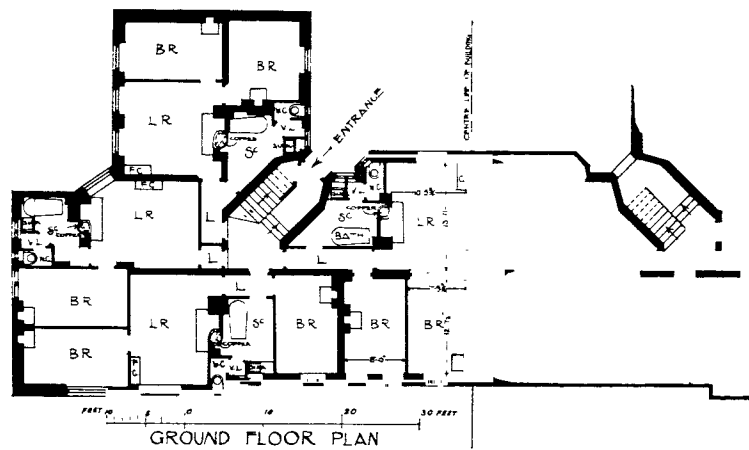
The Council has initiated and carried out under Part I. clearance schemes displacing some 15,000 persons, and has provided, or proposed accommodation, for some 400 more than have been displaced. Under Part II. the County Council, moving by itself, or in co-operation with the Borough Councils, has displaced about 6,000 persons, and accommodation has been provided for about 5,000 of them. Seven thousand six hundred persons were displaced by the Metropolitan Board of Works under special Acts of Parliament, Improvement Schemes, &c., whilst 15,000 persons have been displaced by the County Council and accommodation for 16,000 has actually been provided.

It has been laid down that not less than 400 cubic feet of air space per person for adults should be provided in the Council's dwellings, 200 cubic feet per head being permitted for

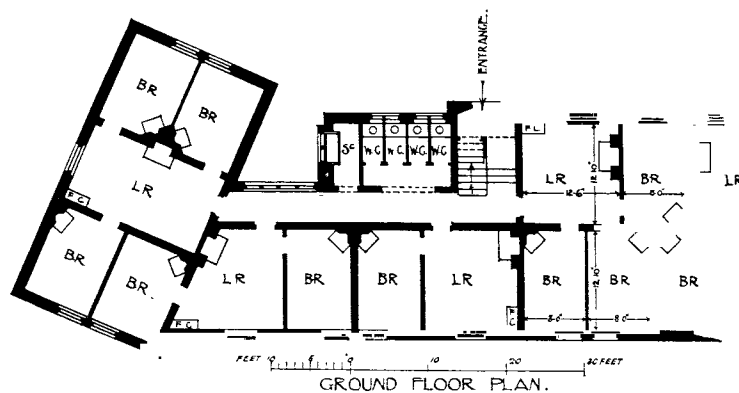
children under ten years of age, and that the number of persons should not work out at more than two to a room. Infants born in a tenement do not count till they attain five years of age. It has been stated before a magistrate that a certain tenant living in an insanitary area, upon whom an ejection order had to be served, could not pay the rent asked by the Council. He had been paying 5s. 6d. per week, but would have had to pay 8s. 6d. per week for a tenement in the Council's dwellings suitable for the accommodation of his family. The point to be emphasised here is that the family was paying 2s. 3¼d. for each hundred feet super under the old insanitary conditions, whereas the Council was in a position to rehouse them in a thoroughly sanitary manner without any charge on the rates at a little over 1s. 10½d. per hundred feet super. When this is understood it will perhaps afford an answer to the irresponsible criticism in regard to the rents charged for the Council's dwellings.

Examples of important schemes undertaken by the L.C.C. under Part I. of the Housing of the Working Classes Acts are:—Boundary Street, Bethnal Green; Churchway, St. Pancras; Webber Row, Southwark; Wellington Place and King's Bench Walk, Southwark; Union Buildings, Clerkenwell.

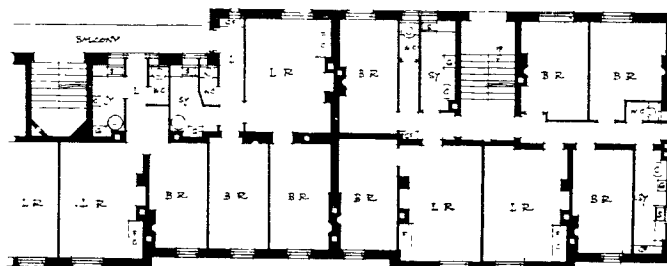
There are two generally accepted forms of construction adopted in the planning of block dwellings, viz. (a) Self-contained tenements; (b) Associated tenements.



L.C.C. DWELLINGS, SELF-CONTAINED TYPE: DEARPORT BUILDINGS, BULHAM.



L.C.C. DWELLINGS, ASSOCIATED TYPE: SONNING BUILDINGS, BOUNDARY STREET.



L.C.C. UNION BUILDINGS AREA: INTERNAL BLOCK.



BOURNE ESTATE, CORNER ELEVATION

(a) The self-contained tenement has its own independent scullery and water-closet; and, except where a common laundry is provided, its own washing arrangements.

(b) The associated type shares with other tenements the sculleries for preparing food, sinks, water-closets, and wash-houses.

Latterly the L.C.C. has invariably adopted the so-called "self-contained" plan. A good example of a large scheme approaching completion is the Bourne Estate and Union Buildings. Bourne Estate consists of two parts. One part, viz., the Reid's Brewery section, is $3\frac{1}{2}$ acres in extent, and was acquired in connection with the Holborn-to-Strand Improvement and Southampton Row Widening schemes, which contained a clause stipulating that all persons displaced who had permanent employment in the district should be rehoused within a mile of their former dwellings. The other part, the Union Buildings section, was an insanitary area of $1\frac{1}{2}$ acres cleared under the Clerkenwell and Holborn Improvement Scheme, 1899, under which the obligation was to rehouse 1,414 persons displaced.

The Reid's Brewery scheme of rehousing was approved by the Secretary of State; and the late Lord Ritchie, then Home Secretary, made an interesting speech on the subject at a dinner given by the Chairman of the London County Council on 3rd December 1900, to the first Mayors of the newly constituted Metropolitan Borough Councils.

Referring to the general question of the housing of the working classes, and in particular to this estate, he said he had that day been engaged on the proposals of the London County Council, and that no more practical scheme had been presented to a department than that which had been formulated in these proposals. The accommodation is arranged as follows :—

			1 estate office.
			1 estate workshop and store.
			64 bicycle sheds.
			37 shops.
			31 tenements containing 1 room.
375	..	..	2 rooms.
263	..	..	3 ..
94	..	..	4 ..
1	..	..	5 ..

the whole providing accommodation for 3,902 persons.

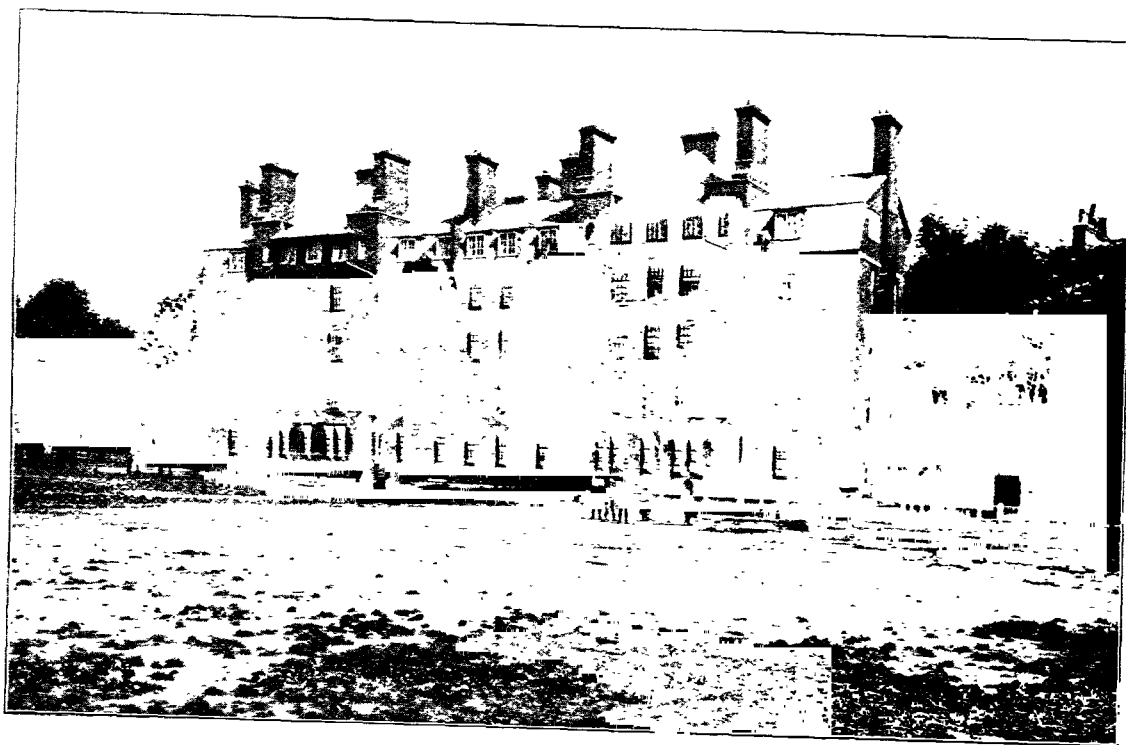
The average area of the living-rooms is 150 feet super, and that of the bedrooms 100 feet. The average cubic space in the living-rooms is 1,275 feet, and in the bedrooms 850 feet. Gas on the slot system is laid on by arrangement with the Gas Company. The buildings were planned for the internal blocks to lie north and south so as to obtain the maximum of sunlight in the living-rooms, and each tenement has at least one room looking on to a garden.

The type of plan designed for these buildings is an improved "balcony plan," arranged so that the living-rooms and the bedrooms do not look on to any of the balconies, and have an unobstructed light. The buildings are five stories high with a few attics, and are constructed of fire-resisting material with steel joists and concrete floors. All the sculleries and water-closets are separated from the habitable rooms by ventilated lobbies. The type of plan of the buildings has, since the completion of the first block, been adopted by other authorities for working-class dwellings, amongst others by the Metropolitan Boroughs of Bermondsey and Hackney. This type of plan has been adopted also for Darcy buildings, a small five-story block of dwellings erected for rehousing some of the persons displaced through the widening of Mare Street, Hackney. The site, though narrow, is an excellent one, as the building overlooks London Fields, a permanently secured open space. The dwellings will accommodate 190 persons in 25 tenements of two rooms and 15 tenements of three rooms. The total cost of the building including all incidentals amounted to £9,719. 11s.

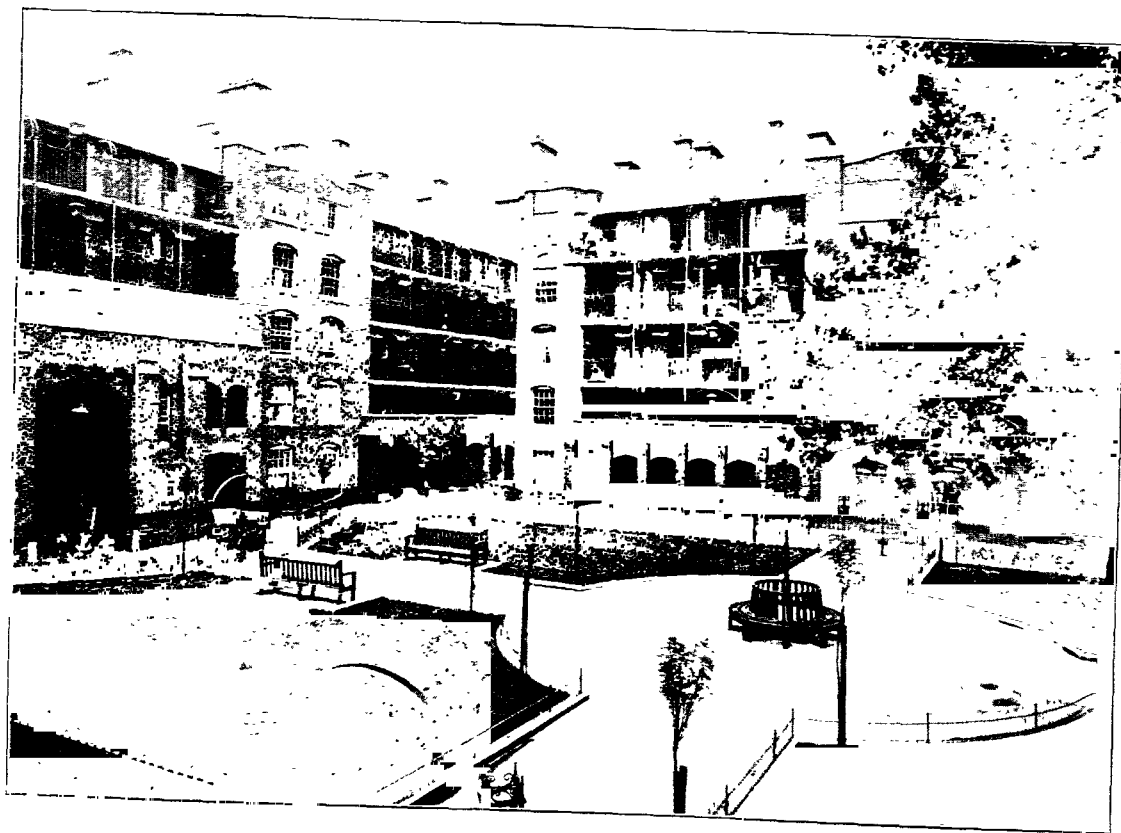
Dwellings erected under Part II. are: Cranley Buildings, Holborn; Cobham Buildings and Borough Road Buildings, Southwark; Ann Street Dwellings, Poplar; Sylva Cottages, Deptford.

The obligations to rehouse when displacements have occurred in carrying out improvements have in some cases been discharged in connection with the housing required under clearance schemes. The cost of land is a serious handicap to housing operations, no matter which part of the Act prescribes the machinery. Briefly, the financial obligation entails the necessity of building dwellings which will recoup themselves in sixty years, paying sinking fund charges and interest of cost of buildings and of the land, which is written down in value as if it were earmarked for housing purposes. In the central districts of London it generally costs 15s. to 17s. per foot super to clear slums, but very few schemes can be made to pay if the charge for land alone is more than about 5s. per foot.

Bruce House—a lodging-house—at the corner of Kemble Street and Drury Lane, is an example of the fulfilment of part of the obligation to rehouse under the Holborn-to-Strand improvement. Bruce House contains 709 cubicles in all, affording accommodation for 698



GADY BUILDINGS - HAGENFEL



CALDONIAN ROAD BUILDINGS - COURTYARD GARDEN

lodgers (men) and eleven porters. It was opened in 1906, and cost, with the necessary machinery and apparatus for lighting, ventilation, &c., £50,020. The elevations are of red brick facings, relieved with glazed and Luton bricks, stonework, and roughcast, and the roofs are covered with green slates. The plan of the building is E-shaped above the ground floor, so arranged as to provide adequate light and air to the cubicles. Each lodger has an independent cubicle having a minimum width of 4 feet 10½ inches, with an area of 36 feet super, and lighted by a separate window.

Under Part III. of the Housing Act the operations are carried out on a purely commercial basis, and the cost of land is not written down. The plans and details of the dwellings are not subject to approval by Government Departments. Two fairly large Part III. estates on which block dwellings have been erected are the Caledonian Asylum Estate, Islington, and Wessex Buildings, Holloway.

Caledonian Estate is about two acres in extent, and, being acquired by the Council under Part III. of the Act, bears no rehousing obligation. The estate is therefore charged with the total capital expended in respect of land, buildings, gardens, &c., and all other outlay in connection with the development of the estate. After making due provision for all expenditure, including debt charges, the accounts show a profit of 1·15 per cent. on the gross rental. The buildings are five-story block dwellings containing 272 tenements, the four back blocks being of the improved balcony type. The front block has closed staircases with windows and white glazed tiled dado, giving approach at each landing to four tenements, averaging nine rooms for each set of four tenements. On the basis of two persons to the habitable room—six one-room tenements, 116 two-room, 146 three-room, and four four-room tenements accommodate 1,384 persons. The estimated cost of the buildings and incidentals was £57,396. 10s., and worked out at 7·86d. per cubic foot.

The most extensive developments under this part of the Act, however, have been the laying out of "Cottage" estates. Three large estates of this kind are in progress at the present time, while a fourth, the Old Oak Common Lane Estate, has been acquired, and a scheme for development is in progress.

Totterdown Fields Estate at Tooting comprises 38½ acres. The roads have all been formed and cottages have been erected on about 25½ acres.

Norbury Estate comprises about 30 acres. The roads have been formed on about 18 acres, and cottages erected on about 5 acres.

White Hart Lane Estate is divided into two parts. The larger or southern section comprises 178 acres; the roads have been formed on about 35½ acres and cottages erected on about 18·9 acres. The northern section comprises 46 acres and is not yet ripe for development. The Council has all along intended that this isolated portion should wait till the neighbourhood has opened up and become ready for building accommodation.

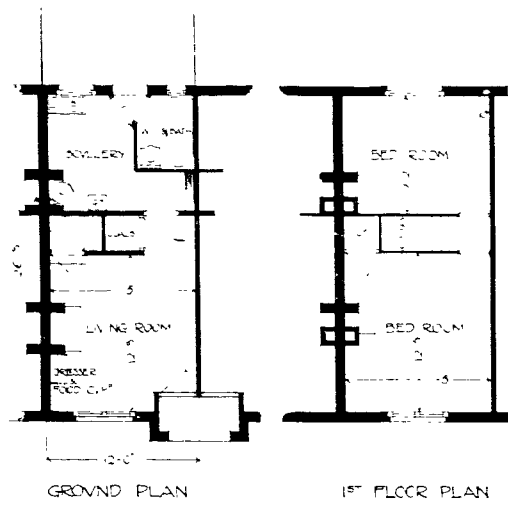
Endeavour has been made to render the cottage estates successful, both from a commercial and architectural point of view. Variety in planning and treatment of the elevations has been arrived at, as will be seen from illustrations of the plans and elevations.

I give a few typical designs illustrating three-, four-, and five-room cottages.

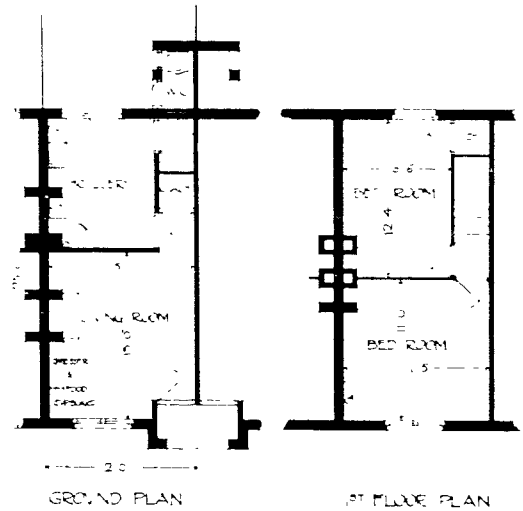
The cottages are two-story buildings arranged in short terraces with spaces at intervals, and they are almost invariably set back from the forecourt fence 5 to 14 feet. Each cottage has its own front door and its own plot of garden ground in rear. In every cottage suitable fittings are provided.

The scheme for development and designs produced have been largely influenced by the following considerations :—

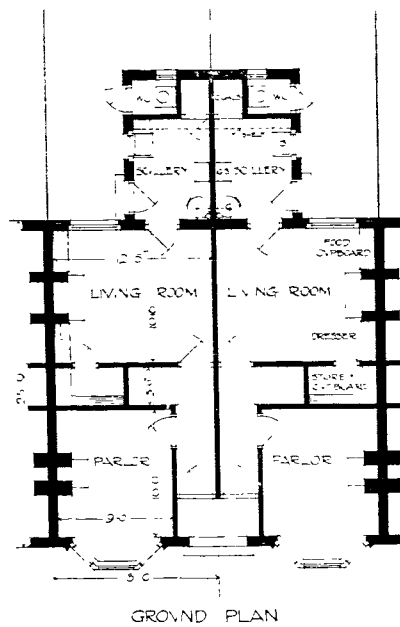
(1) Economy of land area and road construction in proportion to buildings. But in no



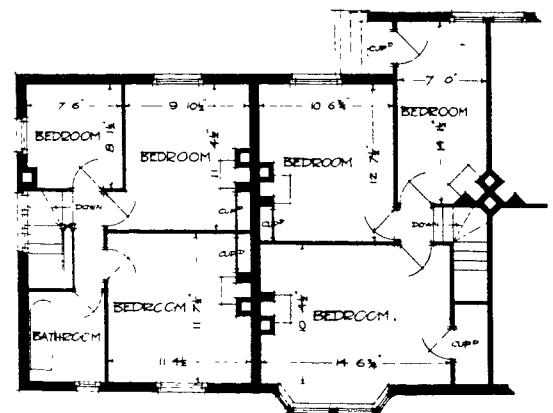
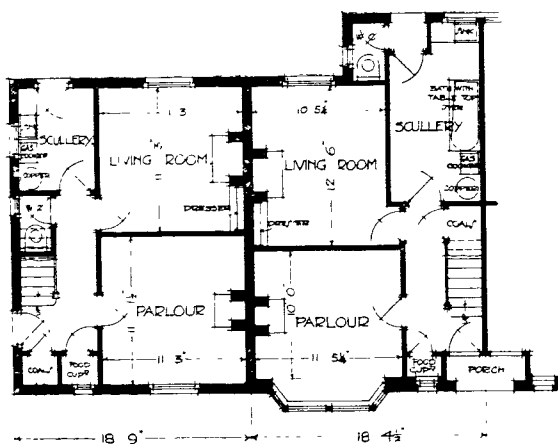
A



B



100-1000 COTTAGES



100-1000 COTTAGES

100 COTTAGES WHITE HART LANE ESTATE

case have more than 33·33 cottages per acre been put on the land, the average number being about 29·14.

(2) The avoidance, as far as practicable, of deep external back projections in close juxtaposition, which, in my opinion, tend to cause insanitary pockets and prevent the free circulation of air currents along the backs of terraces of houses. I am sure we all view with horror the wholesale erection in close proximity to each other of these insanitary projections in the majority of suburban estates, and deplore the fact that so many estates are being developed on this, the pet plan of the speculative builder. It is a reproach that the law permits it.

It may be of interest if I refer in very general terms to cost of construction, and the



COLLIERDOWN ESTATE. COTTAGES.

methods employed of issuing particulars for tender and contract in regard to working-class dwellings, the expenditure on which has to be reduced to a minimum.

For large works plans are prepared in the usual manner, and specifications and bills of quantities are also prepared. Sometimes "open," sometimes "selected," tenders are invited. The cost of block dwellings, including professional and incidental charges, erected during the past five years, has worked out at about an average of £86 per room, or 9·8*d.* per cubic foot. For cottages, however, it has been found generally most economical to obtain tenders as follows: The working drawings of the buildings are prepared to $\frac{1}{8}$ -inch scale, and a few essential details to a larger scale. A simple specification is prepared giving very little detailed description of construction, but specifying the quality of the articles required. To the specification are attached the Council's Instructions for Tender, Form of Contract, and Schedule as to rates of wages and hours of labour. No bills of quantities are prepared, but each contractor

invited to tender is supplied with a set of drawings, specification, form of contract, &c. I find under this procedure that there is no difficulty in getting excellent contractors, both in large and smaller ways of business, to compete. This simple means of obtaining competition works admirably, not only in the initial process of procuring tenders, but in the adjustment of variations, &c., for at every step the architect knows just how the cost of the work stands. Care has to be exercised in the granting of advances for work done, but there is no difficulty in framing a table of values on which to work.

The cost of cottages varies considerably according to district.

Cottages recently erected have cost :

At Totterdown Fields Estate, Tooting —

5-roomed cottages, including professional and incidental expenses,	£349 to £384
4-roomed	£235 to £273
3-roomed	£192 to £216

the average cost per cubic foot being 6·14*d*.

At White Hart Lane Estate, Tottenham—

5-roomed cottages, including professional and incidental expenses,	£253. 16 <i>s</i> .
4-roomed	£204. 4 <i>s</i> .
3-roomed	£168. 16 <i>s</i> .

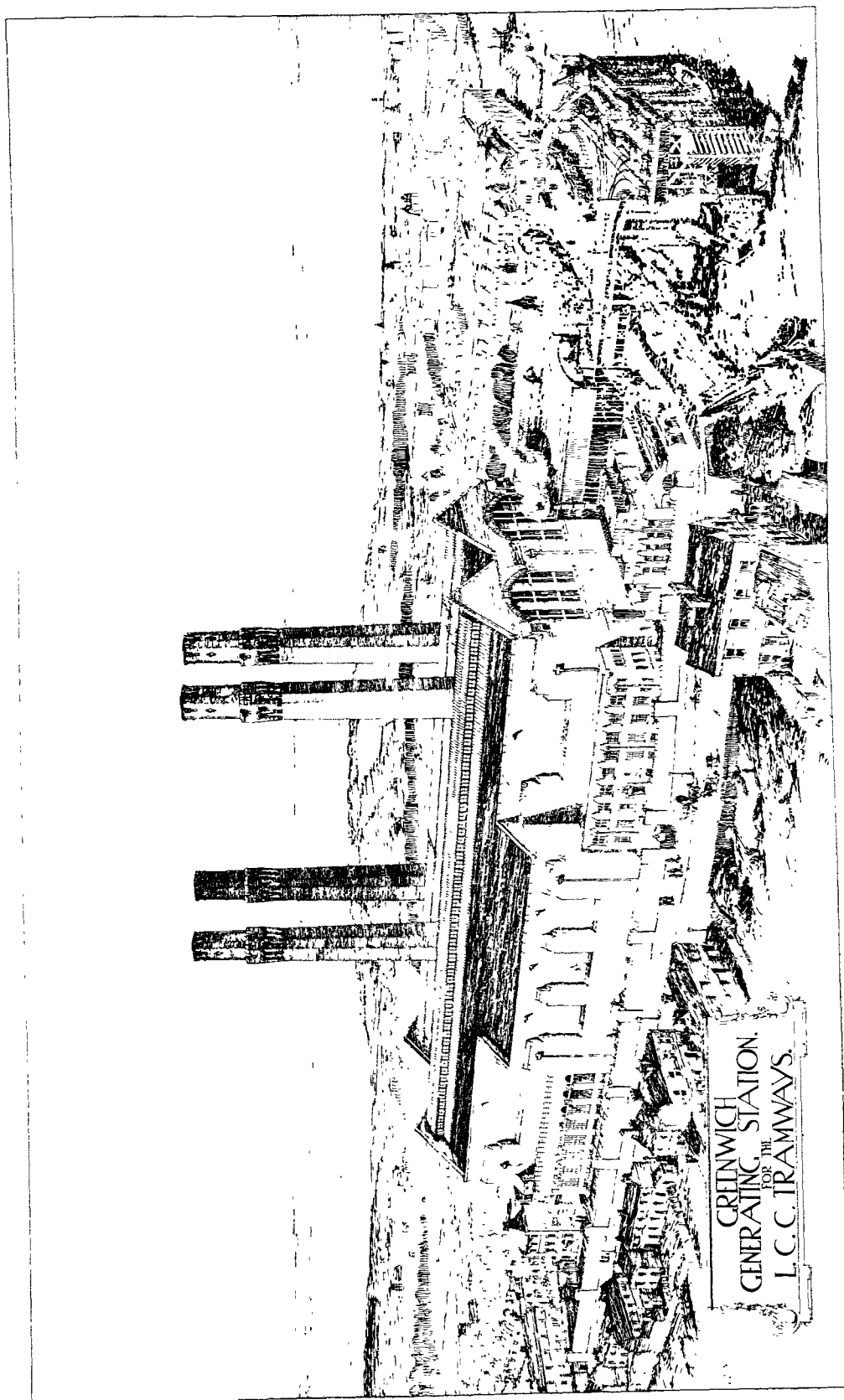
the average cost per cubic foot being 4·97*d*.

I now pass to an entirely different class of work, viz. :

ELECTRICITY BUILDINGS.

In 1902 it became necessary to construct buildings in connection with the electrification of the whole of the tramway system within the County of London. This involved the erection of a large generating station at Greenwich, and a repair depot, car sheds, and sub-stations placed at convenient positions near the routes. Of these buildings 22 sub-stations are already in full work transforming the current, 10 car sheds accommodating 1,324 cars are in use, and the Greenwich Generating Station is approaching completion. The Greenwich Station is to accommodate plant for generating high-tension 3-phase current at 6,600 volts to supply the sub-stations on both sides of the river for tramway purposes. The site adjoins the Thames about 150 yards east of the Greenwich Hospital. The area is about 3·7 acres, with a frontage to the river of about 240 feet. The building is divided into two bays, one of which is occupied by the boilers, and the other by the engines, turbines, and dynamo machinery. It is erected on a concrete raft 6 feet thick which extends over the whole area of the boiler and engine rooms. In this concrete raft are placed R.S.J's, forming grills at the various points where stanchions carry the super-structure. The boiler house is 455 feet 9 inches long, 84 feet 6 inches wide, with an average height of 105 feet, and accommodates 48 boilers of the Stirling and Babcock & Wilcox types arranged in 24 batteries of two boilers each, 12 batteries on either side of a central gangway.

The situation on the south bank of the Thames assures an ample supply of water for condensing purposes, and also affords facilities for the delivery of fuel and the removal of ashes on the most economical basis. Coal is brought to the specially constructed pier by sea-going steamers, with a carrying capacity of 2,000 tons. Three electric jib-cranes fitted with grabs unload the coal into trucks with folding bottoms. These in turn, after passing over a weigh-bridge, drop the coal into an outside bunker having a capacity of about 2,000 tons, enabling a 2,000-ton collier to be unloaded in about 36 hours. From this bunker the coal is conveyed by gravity bucket-conveyors to the main bunkers immediately over the boilers. These bunkers



SHOWING STATION AND CHIMNEYS AS ORIGINALLY DESIGNED

have a storage of 13,000 tons. There are two bucket conveyors each dealing with 40 tons per hour. On their return journey they pass under the boiler house and convey the ashes to a large storage hopper beneath the pier, ready to discharge into barges. The average consumption of coal when the station is in full work will be about 500 tons daily.

The engine-house is built parallel to the boiler-house. The dimensions are 455 feet 9 inches long, 83 feet 6 inches wide, with an average height of 103 feet. The floors of the engine-room and of the galleries, which provide access to the steam-valves, are constructed of coke-breeze concrete covered with terrazzo paving. The internal wall-facings are of glazed brick. The gantry to carry a 50-ton travelling-crane is supported by steel stanchions which also carry the roof-principals. The four engines in the first portion of the station are of reciprocating type, with alternators, each of 3,500 k.w. capacity. The second portion is being fitted with four sets of 5,000 k.w. three-phase turbo-generators. The pump-house, for bringing the condensing water from the river, is situated between the engine-house and the river, and consists of a strainer-house, pump-house proper, and valve-house.

The roof framing of the pump-house is of steel, with brick arches. These are covered with concrete, on which asphalt is laid, forming a flat to carry a 50,000-gallon tank, which provides water for the boilers.

The offices are built on the east side of the engine-house, and communicate with the switchboard galleries. The sub-station and workshop are situated south of the switchboard galleries, and flanking the second portion of the engine-house. Mess-rooms and lavatories for each working section of the staff have been provided in positions convenient to where the employees are engaged.

The chimney-shafts are octagonal. The first pair were built to the full height of 250 feet above the boiler-house floor-level, but during the construction of the second pair it was discovered by the Astronomer-Royal that their height and the emission of hot gases would interfere with the observations at the Greenwich Observatory. It has been necessary, therefore, to finish these two chimneys off at a height of 182.12 feet above boiler-house floor-level. At the time the Admiralty's request to limit the height of the southern chimneys was being considered by the Council, a remark was made in the House of Lords to the effect that the Council's architect, who had been in the service of the Admiralty as Assistant-Director of Works, was responsible for the generating station being placed in that position. But the position of the station was clearly set out in the schedules attached to the London County Council's (Tramway and Improvement) Act 1902, which was before Parliament in that year, and no objection was raised to the position at that time. Moreover, the Committee were not advised by me in the selection of the site. When, however, the facts were explained, a generous apology was given in the issue of *The Times* of the 27th June 1906.

The materials selected are stock-bricks, with Portland stone for cills, copings, and dressings. The roof is covered with Bangor slating and patent glazing. The total cube of the building is 9,670,000 cubic feet.

The engineering disposition of the parts of this gigantic building, together with the entire equipment of the machinery, etc., is the work of my colleague Mr. J. H. Rider, the Council's electrical engineer, who was also mainly responsible for changing the site of the building from Camberwell to Greenwich, where facilities for water-borne fuel were secured.

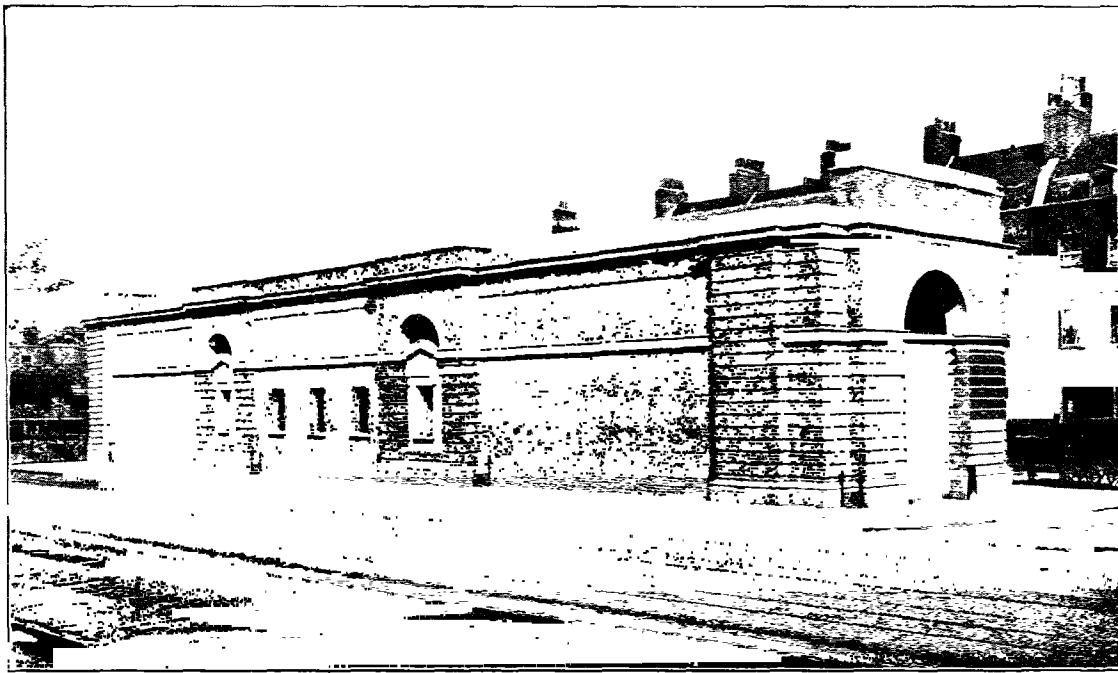
THE NEW CROSS CAR SHED.

This car shed, on the south side of New Cross Road, covers nearly four acres, and accommodates 295 double truck cars. To obtain a level working floor it was necessary to form an average gradient of 1 in 27 from the New Cross Road and to excavate the back portion of the

site to a depth of 14 feet. The plan is roughly a square, and nine bays of roofing run north and south, the standard span being 43 feet 3 inches between centres of stanchions. The westernmost bay is arranged as workshop and paint shop. Generally the walls are of yellow stock brickwork, with a dado of salt-glazed bricks 5 feet 6 inches high to resist grease. The stanchions, roof-trusses, and girders are of mild steel, the total weight of steelwork being about 1,700 tons. The roofs are covered with blue Bangor slating and patent glazing. The elevation to the entrance is of Portland stone. The building cost about £87,000.

SUB-STATIONS.

The sub-stations have been designed to accommodate the switch gear controlling the various sections and the 500 k.w. generators, which transform the high-tension current received from Greenwich to a direct current of a working pressure of 550 volts.



ISLINGTON SUB-STATION.

There are two types of these buildings, the earlier being those with basements in which the high-tension switch gear was placed, the sub-station at Islington being an example. The interior of the machine-room is lined with ivory-glazed bricks with a salt-glazed brick dado, the floor being of steel and coke-breeze concrete covered with terrazzo. A gantry is constructed to carry the 10-ton travelling crane. The switchboard platform extends practically the full length of the building, and a mess-room adjacent to the switchboard is provided for the attendants, with a workshop for small repairs. The exterior of the building is in picked stocks and Portland stone dressings. The roof is covered with Bangor slates and patent glazing.

The Forest Hill sub-station is an example of the new type without a basement, the high-tension switch gear being placed on a gallery above the switchboard platform, otherwise the

arrangement of plan is the same. The materials used in the construction are similar to those at Islington.

The next division of our subject relates to

EDUCATIONAL INSTITUTIONS, INCLUDING TECHNICAL SCHOOLS.

The special educational establishments which have recently been created are:—The Central School of Arts and Crafts and the London Day Training College in Southampton Row: the School of Engineering and Navigation at Poplar: the Westminster School of Art and Technical Institute: the School of Arts and Crafts at Hammersmith: and other Technical Schools at Shoreditch, Paddington, and Brixton.

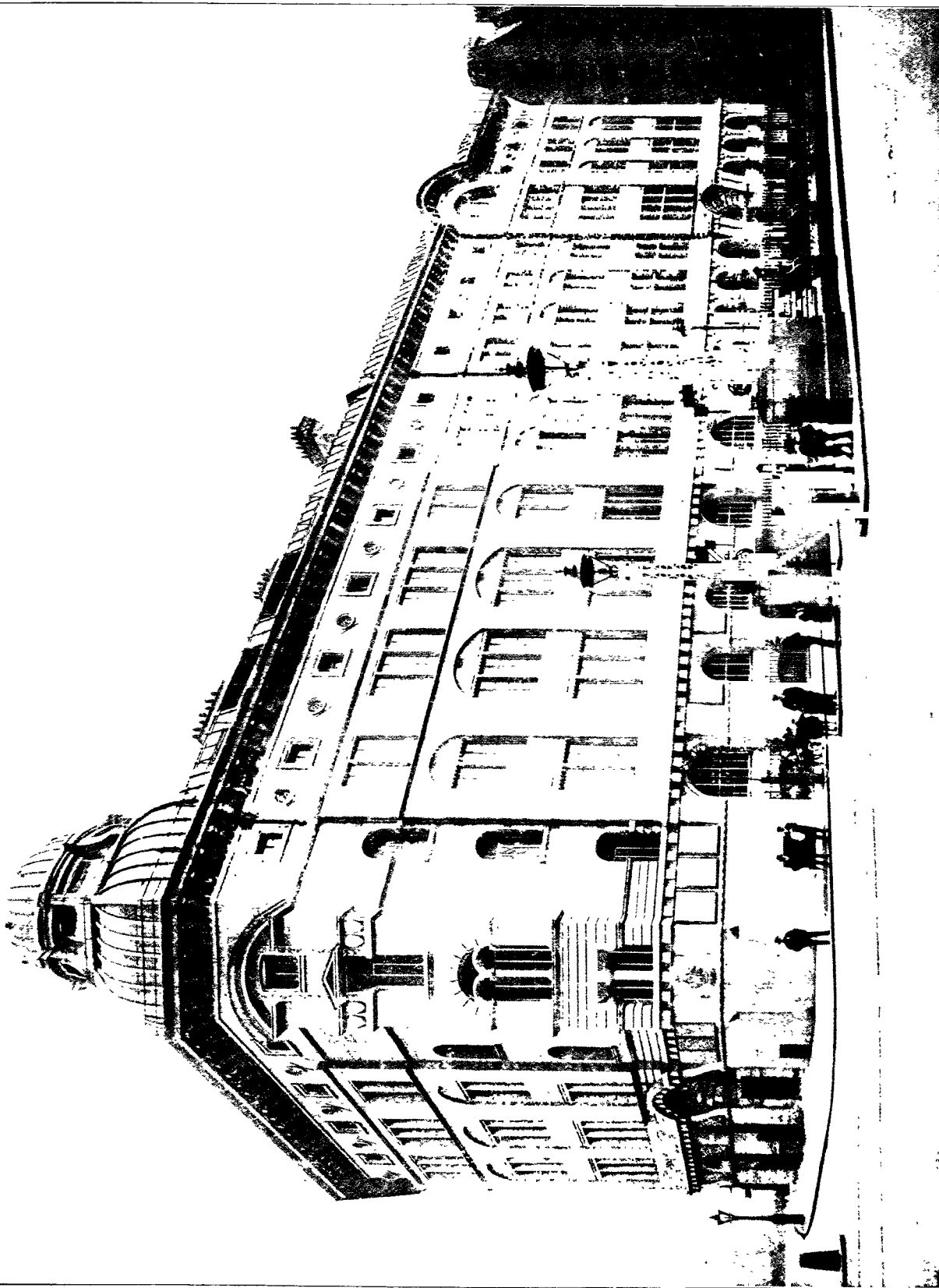
THE CENTRAL SCHOOL OF ARTS AND CRAFTS AND THE LONDON DAY TRAINING COLLEGE.

The School premises extend 107 feet along the Southampton Row frontage: the Training College occupies the remaining 110 feet. The buildings were placed in contiguity, so that economy might be effected by the common use of rooms by the students of both School and College, and by avoiding the reduplication of heating apparatus, plant, &c. Incidentally the combination of the two buildings under one roof lends itself to breadth of treatment. The College is for the professional training, in teaching, of students who are receiving their academic education in the University of London at King's, Bedford, and other Colleges. The School building has a basement and five other floors, and an endeavour has been made to classify as far as possible the various trades, and to devote a whole floor to each of the main groups. The principal drawing and modelling studios are on the fourth floor, and are carried up through the fifth floor to the roof, and are top-lighted.

The College building has seven stories, including the basement and entresols. To the lower have been allocated those rooms in which a large number of persons will congregate: to the uppermost, which is partly in the roof, the top-lighted art-rooms and laboratories: and to the intermediate stories the general class-rooms. In the basement, as being of little value for class-rooms, is placed the gymnasium, with dressing-rooms and shower-baths: cloakroom accommodation for men: storage for cycles: quarters for the resident caretaker: and the coal stores. A controlling factor of the lower portion of the building was the Lecture Theatre, which it was necessary to place so as to be convenient of access from the adjoining Central School. This theatre, which is seated for 300, is situated on the ground floor, the remainder of which is occupied by the entrance hall and staircase and the upper part of the gymnasium.

The greater part of the first floor is occupied by two very large rooms which are used as common rooms for the students and occasionally for examinations. Adjoining these are the luncheon room and buffet: the kitchen is on the top floor. The height of the general class rooms is about 12 feet, of the common rooms 16 feet, and of the gymnasium, art rooms and laboratories 20 feet. Steel casements have been used throughout, those on the upper floors arranged so as to be easily cleaned from inside the building, and the rooms facing Southampton Row have double windows. The height of both School and College from the street to the cornice is 75 feet 6 inches. Above this the roof, which is covered with lead, rises to a further height of 12 feet. The façades generally are faced with Portland stone, the lower part to 12 feet 6 inches above the street with granite from the Colcerrow Quarries in Cornwall.

Dressings of Hopton Wood stone have been used in the halls and staircases and in the exhibition hall. The construction throughout is fire-resisting, and provision is made for



LONDON CORP'Y FOR SCH. TECHNICAL COLLEGE, SOUTHAMPTON ROW, W.C. (W. F. REEVE, ARCHT.)

(Reduced from an illustration in *The Builder*, 14th May 1908.)

alternative means of escape in case of fire. The ventilation is on a simple extract system, fresh air being admitted through ventilating radiators.

The cost of the two buildings, exclusive of equipment, is estimated at approximately £115,000.

THE SCHOOL OF ENGINEERING AND NAVIGATION AT POPLAR.

This building was designed primarily to give instruction in marine engineering, naval architecture, and other kindred subjects. It cost approximately £27,000, exclusive of machinery equipment. The main front is faced with Portland stone; other walls have stock-brick facing. The columns in the entrance hall are of Hopton Wood stone. The roof is covered with green Cumberland slates. The casements throughout are of steel. The fittings and equipment were designed and constructed with the rest of the building. Owing to the subsoil at the back part of the site being waterlogged to within a few feet of the surface, considerable difficulty was experienced in the foundation works. The back wall of the buildings is built on steel girders resting on cast-iron cylinders sunk to a gravel stratum, which is about 18 feet below the ground floor. The cylinders were heavily weighted, the core excavated by divers and the cylinders filled with concrete carefully deposited.

THE WESTMINSTER SCHOOL OF ART AND TECHNICAL INSTITUTE.

This building is somewhat typical of the Institutes. It had to be designed, however, as an addition to the existing School of Art, erected by the late Baroness Burdett-Coutts, and recently taken over by the Council. The studios for painting from the life are on the top floor and are north lighted. The heavy and noisy crafts have been kept on the ground floor of the blocks. The sanitary offices are arranged on mezzanine floors, and are isolated from the class-rooms by cross ventilated corridors. The administrative rooms are adjacent to the entrance. Two staircases provide alternative means of escape in case of fire. The construction is fire-resisting throughout.

The class-rooms are about 14 feet high; the corridors are ceiled about 10 feet up, and the space above utilised for the pipe mains, electric-light leads, and ventilation ducts. Casements are of steel, arranged so that the windows can be cleaned from inside the building. Ventilation is by a simple extract system, with electric fans at roof level operating through metal ducts, fresh air being admitted through ventilating radiators. The heating is by low-pressure hot water. The corridors are paved with hard red tiles, the class-rooms with pitch-pine blocks. The joinery generally is yellow fir, painted; the smoke doors and staircases are of oak in no



PRINCIPAL DOORWAY, SCHOOL OF MARINE ENGINEERING, POPLAR.
Sculpture by Mr. Bertram Thomas.

place less than 2 inches thick. The class-room walls are plastered: those of the workshops are fair-faced with gault brick. The lower part of the facade is of Portland stone, the upper of stock brick, with Portland stone window jambs and heads, cornice, and quoins. The forecourt railings and gates are wrought iron. The buildings cost £21,000.

FIRE BRIGADE STATIONS.

In planning modern fire brigade stations there are two essentials—the provision of adequate accommodation for the necessary apparatus, and the housing of the men in such a way that they may be able at any time to reach the positions assigned to them as quickly as possible to ensure a rapid turn-out. As regards the men, moreover, it is necessary to provide special means for them to restore themselves to a decent state after a call to a fire, which rapidly converts a man from a spick-and-span condition to one of grime and discomfort. As regards the first essential I will show by plans the method adopted to attain the object in view. As regards the second I will briefly describe the arrangements for accommodating the men, as also the difficulty in cases of this kind of overcoming objections to housing a man's family in the same building as that in which he does his duty.

The system of fire calls is arranged on the following plan:—Each station or sub-station is in direct communication with a superintending station, which in turn is connected with “headquarters.” Grouped around and in communication with each of these stations or sub-stations are fire alarms, of which there are 1,317 in the County of London. A call can be received in three ways—from an alarm post, by telephone or bell at the station, or from the superintending station. A call from an alarm post causes a bell to ring and a red indicator to drop defining the post from which the call emanates. The duty man then pulls the “time switch,” which simultaneously lights up the call lights and rings bells throughout the building, the lights and bells in the private quarters being operated only in those parts where the men are on duty. The lights and bells continue for three minutes. The duty man then notifies the superintending station of the call, and the superintendent in his turn notifies headquarters and the two stations adjoining the one at which the call has been received. This is known as a “home call.” If the fire at the time of the call, or later, is more than the “home call” can cope with, a “district call” is given, and if the fire is still unmanageable, a “brigade call” is given.

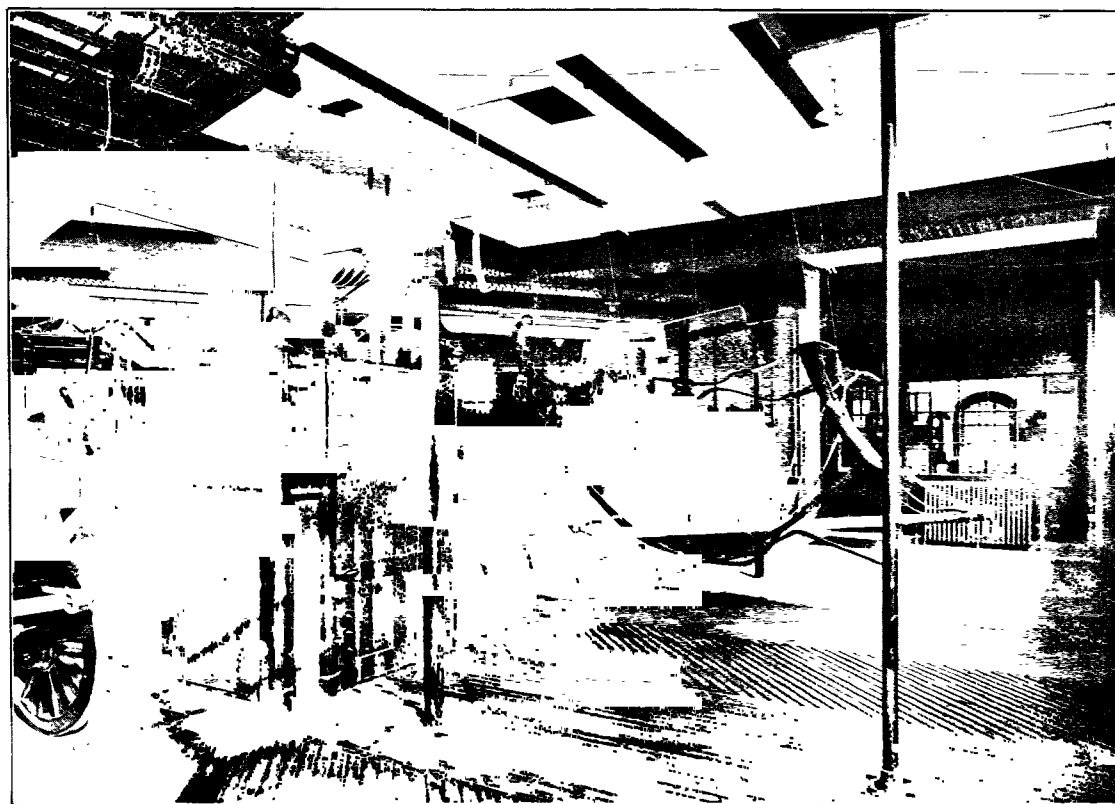
In some of the larger and more recently constructed stations coloured lights are attached to the ceiling of the appliance-room to indicate the particular appliance or appliances required to answer the call. A *red* light, for instance, indicates “horsed escape”; *green* the fire engine; *yellow* the long ladder.

In the case of a station where the traction is provided by horses the stall doors are constructed to open rapidly by means of automatic pulls. The trained horses then run out to their positions beside the escape, which is nearly always the first appliance to leave. Some of the men who are on night duty sleep fully dressed on trestle beds in the recreation room, others descend from upper floors by means of sliding poles, and having ascertained from the ceiling lights what appliance is required, assist in fastening the swinging harness suspended from the ceiling. They then mount the appliance and don their helmets, which are kept on the appliance in readiness. The man in charge of the appliance opens with a “pull” the large front gates, which work automatically, and the appliance passes out to its destination. In some stations the man on duty can communicate from the watch-room with the driver of any appliance by a loud-voiced speaking-tube ending in a megaphone directly over the driver's head, and so instruct him where to proceed. The time taken on an average is 15 seconds (Cannon Street Station).

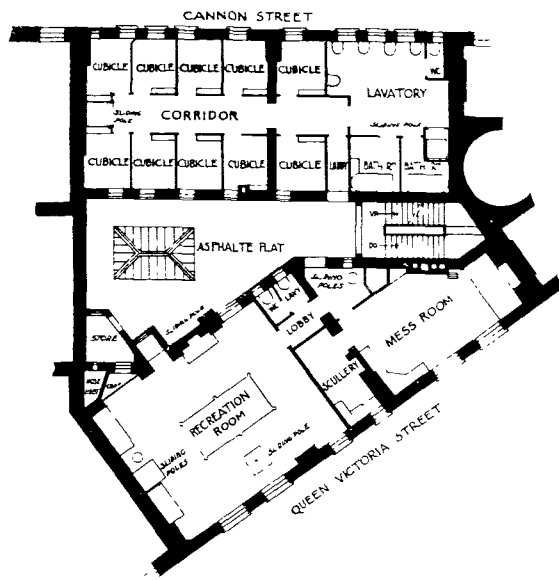
Meantime the same procedure is taking place as regards the fire engine, which follows the escape, the average time occupied in turning out in this case being 60 seconds. The men not on duty, in the event of a night call have to get up and dress. Steam is always kept in the boiler of the fire engine whilst standing in the station, at 100 lbs. to 120 lbs. pressure. The appliances having left the station the duty man informs his superintendent, who then takes charge, receiving information direct from the site of the fire. The superintendent directs operations according to the necessities of the case, drafting appliances and men as required from surrounding stations in the district. He then communicates with headquarters, and in relation to the nature and extent of the fire a "district" or "brigade" call is ordered, the appliances and men at the outlying stations drawing in to stand by in more important positions which have been vacated.

CANNON STREET STATION.

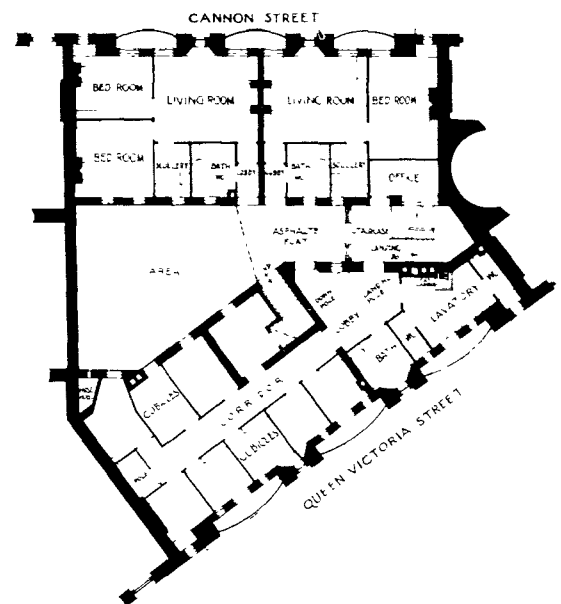
Owing to the inadequacy of the old Watling Street Station, the present Cannon Street Station, the present Cannon Street Station, which stands at the corner of Cannon Street and Queen Victoria Street, was erected by the Works Department of the Council at a cost of £16,000. The building, which is faced with Portland stone on both fronts, was completed in 1907. This station provides accommodation for 1 horsed engine, 1 motor escape, 1 horsed escape, 1 manual escape, 1 Magirus long ladder, 1 hose cart, and 6 horses; with quarters for 1 station officer, 22 firemen, 4 coachmen. Eight of the staff are provided with "married quarters."



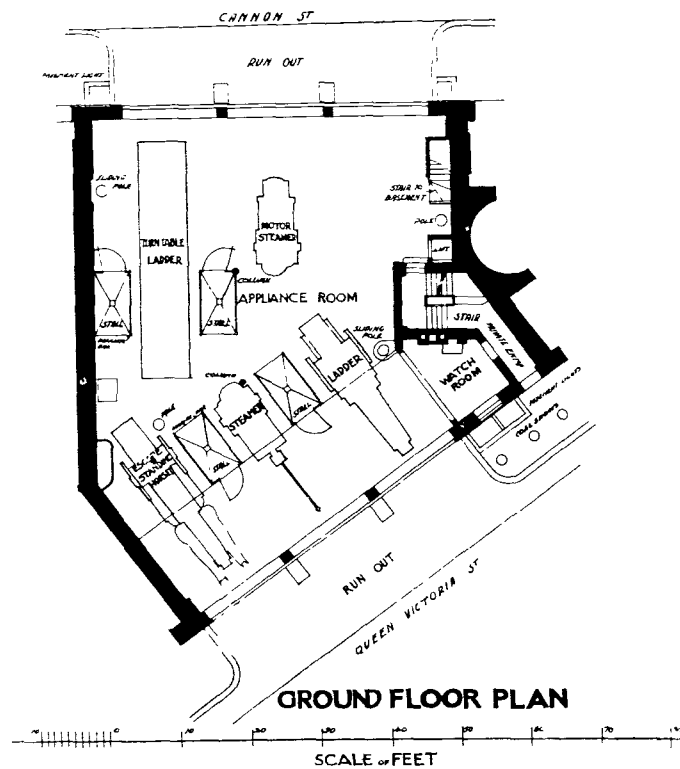
CANNON STREET FIRE BRIGADE STATION.



FIRST FLOOR PLAN



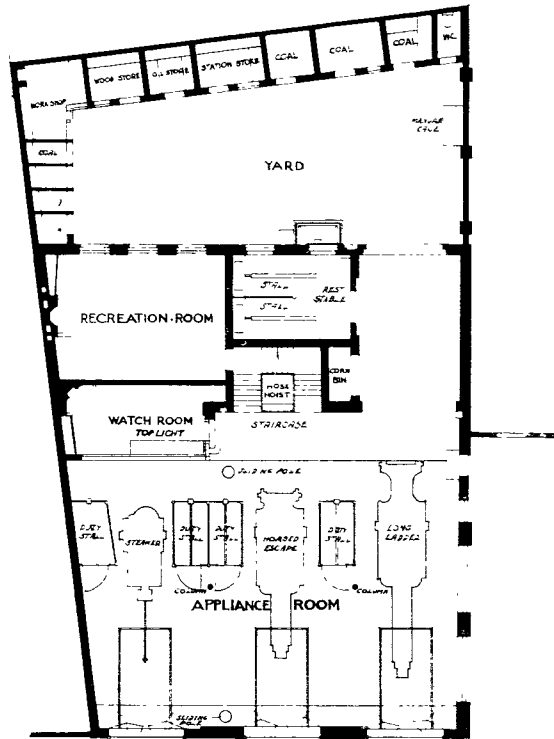
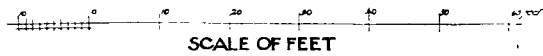
SECOND FLOOR PLAN.



GROUND FLOOR PLAN

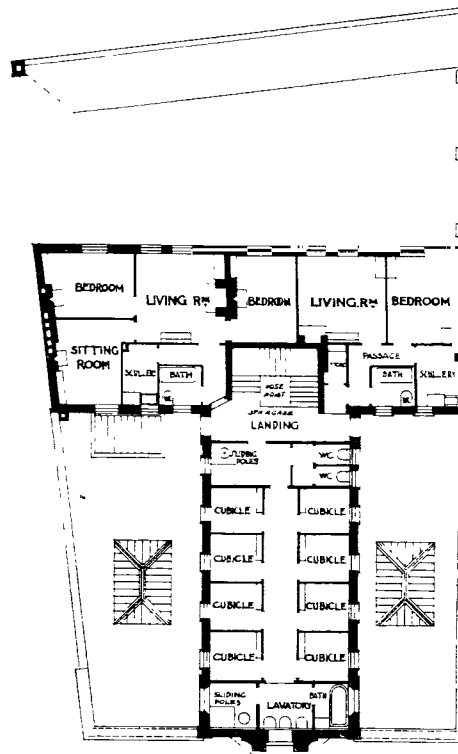
SCALE OF FEET

CANNON STREET FIRE BRIGADE STATION.

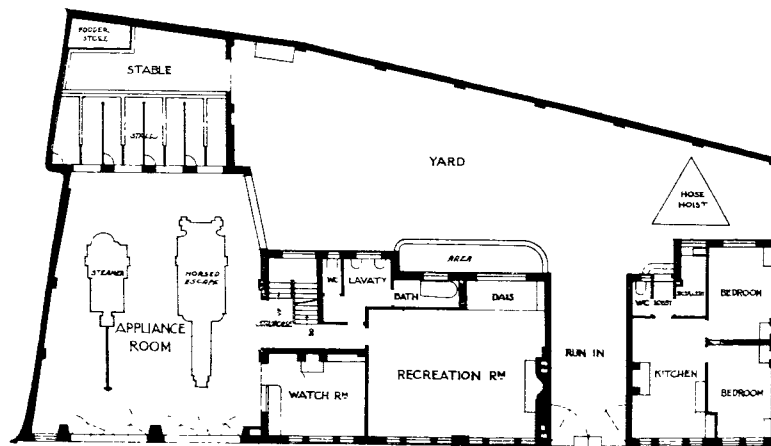


GROUND FLOOR PLAN

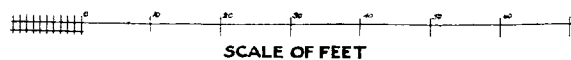
FIRE BRIGADE STATION, KENSINGTON.



FIRST FLOOR PLAN



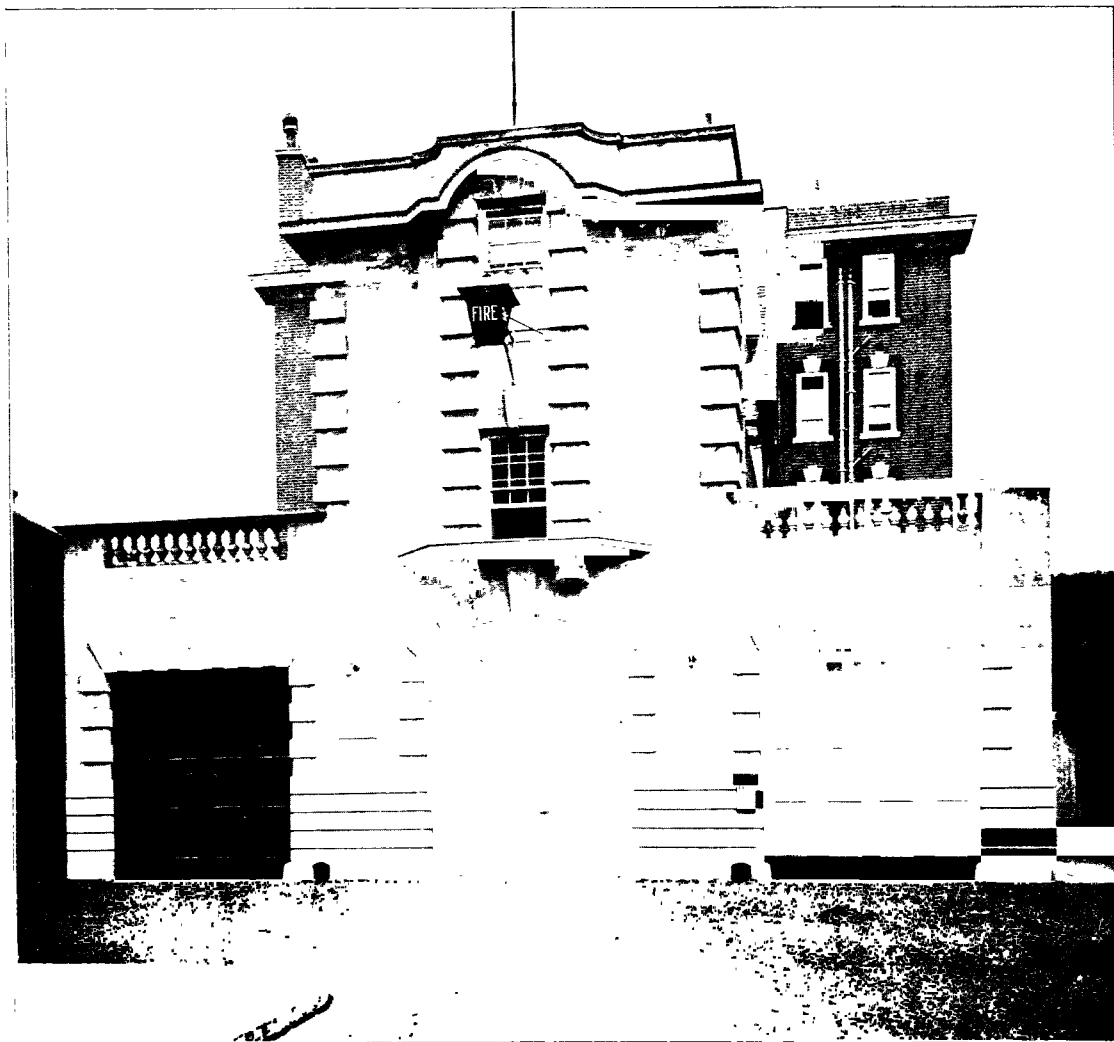
GROUND FLOOR PLAN



VAUXHALL FIRE BRIGADE SUB-STATION.

KENSINGTON STATION.

This Station was erected on a site covering an area of 6,100 square feet. The building, which was completed in 1905, was erected by Kerridge & Shaw, of Cambridge, at a contract price of £10,980. The elevation generally is of red brick with Portland stone dressings, the



KENSINGTON FIRE BRIGADE STATION.

portion immediately fronting the street being entirely faced with Portland stone. Accommodation is provided for 1 horsed engine, 1 horsed escape, 1 manual escape, 1 long ladder, and 6 horses; and the building houses a staff of 1 station officer, 15 firemen, and 3 coachmen. To eight of the staff married quarters are assigned.

VAUXHALL SUB-STATION.

Vauxhall is a typical sub-station. The building was erected by the Works Department at a cost of £8,400, and the station was completed in 1903. The elevation is of picked stocks with Portland stone dressings. Space is provided for 1 horsed escape and 1 hose cart, with a staff of 1 station officer, 1 coachman, and 5 firemen. It is now being extended to the capacity of a full station.



VAUXHALL FIRE BRIGADE SUB-STATION.

IMPROVEMENTS.

Our next subject is one of much public importance and interest, namely, that of street improvements. In this connection I will deal specially with the Holborn-to-Strand Improvement, which presented the opportunity of making as great a mark on the architectural appearance of London as is likely to occur for many years to come. There are, of course, other improvements which have offered, or will offer in due course, fine opportunities, but there is not time to touch on these.

Improvements between Holborn and the Strand were first mooted in 1836, when a Select Committee of the House of Commons was taking evidence as to necessary improvements in

the Metropolis. A connecting street was proposed between Holborn and the Strand by way of Lincoln's Inn Fields. Improvements in connection with the building of a Record Office on the Rolls Estate were suggested in 1847 by James Pennethorne, who proposed a spur street almost on the line of the western arm of Aldwych.

Again, a proposal was made by Mr. Teulon in 1878. It may be of interest to note that this scheme shows an island garden in the Strand not unlike that recently proposed when the suggested setting back of the Strand frontage was under consideration.

The desirability of an improvement was first considered by the Metropolitan Board of Works in 1856 and again in 1883. Their successors, the London County Council, have also considered many plans for this improvement. One point of prime importance was the question of the retention or removal of the Church of St. Mary-le-Strand. Its suggested removal aroused public opposition, with which this Institute can probably sympathise, as the church undoubtedly forms a highly-picturesque object in all views of the Strand, and its removal would have deprived that part of London of one of its most picturesque and interesting features. Previous schemes showing the new thoroughfare terminated by the church had been objected to, and the crescent-shaped Aldwych, with the "island site" between that street and the Strand, was finally decided upon.

The Council, in the earlier stages of the improvement, fully realised the necessity of obtaining the best results in the new streets, which, while affording improved facilities for traffic, would, it was hoped, result in an architectural treatment of great dignity, and it was held that, if a high standard of excellence were obtained, the cost of the improvement would be reduced. This Institute co-operated with the Council in selecting eight architects, who were invited to submit sketches for the various frontages. Those selected by the assessors as submitting designs which were considered suitable for adoption by prospective le-seees were Mr. Henry T. Hare, Mr. W. Flockhart, Mr. Mervyn Macartney, and Mr. Leonard Stokes. However desirable in the interests of architecture the adoption of any of these schemes would have been, the Council has hesitated to impose upon its lessees any coherent scheme as suggested by these architects, with the result that each design submitted for new buildings is considered on its own merits. The Council has become, by reason of the surplus land acquired in carrying out improvements, one of the largest landowners of London, with a rent-roll of £325,000 a year, and, having regard to the interests of the ratepayers, it is most desirous of avoiding any restrictions as to elevation, &c., which might delay the letting of land. The building conditions have been amended in such a way that I do not hesitate to describe them as less restrictive than those in operation on any other large London estate. Although the circumstances have not been so propitious as they might have been, I venture to think that the architectural treatment, so far, is decidedly above the average hitherto attained in other metropolitan improvements.

Many references have been made in the Press to the squalid poverty which reigned for many years in this district, and to the noisome courts and evil-looking alleys which intersected this large area. One can scarcely credit to-day that many such places existed but recently in the immediate vicinity of St. Mary-le-Strand.

I ought not to pass from this part of my subject without making some reference to the work instituted by the Council of preserving a suitable record of architectural and historical buildings which are demolished in connection with Improvement Schemes. Every building is carefully surveyed and, if desirable, suitable photographs are taken: where any valuable detail, either in stone, wood or iron, is found, a measured drawing is prepared. This has now been the practice for some years, with the result that an interesting collection of many hundreds of drawings and photographs has been formed, which will be of great value in illustrating for future genera-

tions a phase of old London which is rapidly disappearing. I may refer in this connection to the panelled room with an ornamental ceiling from No. 2 Portsmouth Street. This house was attributed to Inigo Jones, and on the front were placed the Fleur-de-Lys, English Rose, and Torch of Hymen, in commemoration of the marriage of Charles I. with Henrietta Maria of France. Among our photographic records is a portion of a Roman bath from the site of Cannon Street fire-station; a portion of the old Roman wall found in Jewry Street, Aldgate, which has been preserved in a new building; and two chalk graves with skeletons complete found on the site of Bermondsey Abbey.

In connection with street improvements, which form a very important part of the work of the Council, attention is at once arrested by the fact that the actual or estimated gross cost of county improvements effected by the Council since 1889, excluding bridges, has amounted to £11,000,000, towards which the local authorities have in some cases contributed. This large sum can only be regarded as the cost of patching up mistakes and remedying deficiencies which should never have arisen had any attempt been made originally to lay out London on a definite plan. The recommendations of the Royal Commission on London Traffic as to street improvements commence by affirming that at the root of the problem of London locomotion lies the fact that many of the streets are too narrow; this fact is always endorsed at academic discussions, and idyllic hopes for the future are expressed; but it is to be doubted whether anything is being done to prevent a recurrence of the evils of which the effect is now so apparent. From 1897 to 1907 about 143 miles of new streets were sanctioned by the Council and 81,870 new buildings were erected in the county; but this enormous development has not been influenced by any directing control, and the meagre powers exercised by the Council under Part II. of the London Building Act provide only for a minimum standard which is quite incompatible with that laid down by the Royal Commission as to the width necessary in new streets. The building owner being only human, and his professional adviser being naturally anxious to make the most of his client's property, it is not, perhaps, surprising that the ideals which are so earnestly advocated in theory are not found to be adopted in practice in the development of suburban London. The want of control can only have disastrous effects, perhaps in the near future, but despite the high conceptions of what ought to be, it is doubtful whether any proposal, such as an amendment of the London Building Act on the lines of the Liverpool Act of 1908, to require a width of 80 feet in new main streets, would be favourably received.

The passing of the Town Planning Bill may have a beneficial effect, and the Bill as amended certainly gives greater promise by enabling land in course of development, or which, although built on, is necessary to a scheme, to be dealt with in such schemes. The scope of the Act in London would be restricted by reason of the comparatively small area within the county which is now unbuilt on, but the Act would in any case prove a useful supplement to the Building Act by compelling the provision of arterial communications.

BRIDGES.

There is not much to add to the very able paper which was read in this room a little while ago on the London Bridges by Professor Beresford Pite. It is no doubt fresh in the minds of many. As regards Vauxhall Bridge great difficulties beset this scheme in its early stages, and there is no doubt that a distinct step forward was made when the æsthetic treatment of it was decided to be a matter of collaboration between engineer and architect. Whether the pylons upon the shore piers, or some other such features giving emphasis to the bridge, will ever be erected is problematical, but I have always thought the importance and value of the whole scheme would be materially improved if something of the kind were added. Referring to the

sculptor's work on the bridge, the figures in the panels I think reflect the greatest credit on Mr. A. Drury, A.R.A., and Mr. F. W. Pomeroy, A.R.A. The energy and artistic feeling these artists have put into their work is of a standard that will doubtless win permanent approval.

As regards the necessary perforation of the abutment of Waterloo Bridge by the tramway near Lancaster Place, I should here like to express my appreciation of the efforts of this Institute to preserve unimpaired the beauty of this very fine architectural monument. The efforts which were made were not wholly successful. The change necessary to adapt it for modern tramway requirements could not be avoided. That the proposals of the Institute were not successful was no fault of theirs, nor, I submit, of the County Council.

The duties which devolve upon the County Council in regard to such points as the restoration of 17 Fleet Street, and the architectural treatment of the Victoria Station wall in Buckingham Palace Road, and of numerous other buildings of the most varied type such as Weights and Measures Stations, Gas Meter Testing Stations, buildings in the public parks, &c., though of no mean importance, would absorb time which is unfortunately not available.

I cannot however bring this paper to a conclusion without paying a warm tribute to the energy and marked ability of my colleagues who have co-operated with me in carrying out this programme of constructional work. It would be invidious to mention particular officers, but I feel that the County Council is served by a very efficient and loyal architectural staff, who are always ready to give of their best to bring to a successful issue any work which is placed within my responsibility.

DISCUSSION OF MR. RILEY'S PAPER.

Mr. ERNEST GEORGE, *President*, in the Chair.

MR. ANDREW T. TAYLOR, R.C.A., L.C.C. *T.*, in proposing a vote of thanks to Mr. Riley, said that the architectural work of the London County Council was in two volumes. They had had that evening the first volume by its author, Mr. Riley. There was a second volume, its educational work, the author of which was Mr. T. J. Bailey. In 1899 Mr. Bailey had given them a Paper on the Elementary Schools of London, and it would be extremely interesting if he would give them a supplement to it at an early date. Mr. Riley's position was a very difficult one, but he should like to state on behalf of the County Council how much they appreciated his work. Necessarily he came in conflict with some of the architectural profession, who might occasionally feel aggrieved that Mr. Riley did not give them everything they expected; but he would ask their forbearance for Mr. Riley, because he had not only his duty to the architectural profession, but his duty also to the London County Council and to the numerous committees and chairmen of these committees. He could assure them it was not always easy to meet those views and reconcile them with what some members of the profession thought right. A good deal of Mr. Riley's work and what had been shown that evening was necessarily of an engineering character; but he thought they would agree that the architectural portions of the work were treated in a most remarkable and

able way. There was a breadth of treatment, a bigness and a dignity about them which remained one somewhat of old Roman work. In purely architectural work he had been on the whole extremely successful, and he would instance particularly that charming little building of his on the Thames Embankment. As regards the vexed question as to how far the London County Council should do its own work, to the exclusion of the general profession, he had great sympathy with those who thought they ought to have a greater share in the architectural work of the London County Council. He shared in large measure their feeling, because official architecture was apt to run into grooves and become more or less stereotyped. He could assure them that the London County Council felt they had an immense opportunity for good or for evil in the architecture of London; they realised it to the full, and they had a great desire to get the best results obtainable. Therefore, if better results were to be got by allowing outside architects to participate, the County Council would be only too ready, and he for one would do all he could where special buildings were concerned to get their co-operation. He was quite sure he should carry Mr. Riley with him in saying that he had so much to do that it was impossible for him to give his undivided attention to the whole of the work. If special work were thrown open to outside archi-

fects they should get that freshness and beauty they all appreciated, and he was sure Mr. Riley himself would not be averse to its being done occasionally. He begged to thank him for his extremely interesting and able Paper.

MR. T. J. BAILEY [F.], Architect to the L.C.C. Education Department, in seconding the vote of thanks, said that the number and variety of buildings for which Mr. Riley was responsible must be a very great strain upon the architect's brain. He knew the difficulties of dealing with committees, and of working for a body like the London County Council, where various committees had their own interests and no official cognisance of the work done by other committees. The result was to overload the architect in one direction with work, and work would be pressed upon him by another committee, and so in three or four directions at the same time great stress would be put upon him. He did not know whether Mr. Riley had one of the difficulties he himself had to contend with, when the Finance Committee came down with a severe critical lash, and added another terror to their troubles. Some of Mr. Riley's buildings did not seem to bear comparison in the same way that education buildings did, where people were apt to compare one with another and ask why one building should cost so much a head more than another of the same class, without taking into consideration different circumstances. He had no doubt, however, that Mr. Riley's work had to be kept within due limits of economy. Mr. Taylor had suggested that he should read another Paper to the Institute, and reminded him that it was ten years since his last Paper was read. It did not seem so long ago; but that Paper, he was proud to say, was considered a useful Paper, and he should be glad to give another, which he hoped would be equally useful.

MR. JOHN W. SIMPSON [F.] said he should like to strike perhaps an even more enthusiastic note than the previous speakers had done, for he thought many present must have been extremely struck by the great dignity and beauty of much of the design which had been put upon the screen before them. A meeting or two ago they had had a very interesting paper by Mr. Swales on the work that was being done in America, and he thought they might say without hesitation that much of the work Mr. Riley had shown them was quite equal to that fine and bold conception of utilitarian work which Mr. Swales had put before them. The subject was too vast and complicated for anybody to attempt to analyse at a moment's notice; but he should like to add his quota of thanks to Mr. Riley for the interesting manner in which he had put it before them.

MR. WM. WOODWARD [F.], in supporting the vote of thanks, said the Paper was very terse and very much to the point, and afforded little scope for wandering outside its subject. Mr. Taylor had wandered somewhat in the direction he himself

should have taken with regard to the question whether it was desirable for the London County Council, or the Borough Councils, to erect these dwellings for the working classes, or whether they should be left to that outside enterprise which was always forthcoming—with a profit—to meet the demand. He might have had one or two criticisms to offer on the external architecture: he did not hesitate to say, however, particularly with regard to the fire stations, that it would meet with the approval of most architects who took an interest in commercial architecture. With regard to housing the working classes, they would all agree that the Metropolitan Board of Works especially, followed to some extent by the London County Council, did most seriously and most unnecessarily anticipate the pulling down and clearance of sites before they were at all ready to re-erect buildings on those sites. When the Metropolitan Board of Works many years ago cleared away the slums of Drury Lane, it would be remembered that hundreds of poor people were turned out of their homes without any provision whatever being made for the immediate starting of new buildings to rehouse them. But that mischief had been considerably modified by the experience gained by the London County Council. The cost Mr. Riley put for each tenement was 8s. 6d. per week—a fourth probably of the average wage of a workman. That formed a very large proportion of the average wage of the classes for whom these dwellings should be erected. He thought they should all agree that no more than one-eighth of a man's wages should be expended in the rental of his dwelling. Therefore, notwithstanding the cost per foot cube, to which he would refer directly, he thought some other means should be taken to provide for the real working classes who could not afford to pay more than 3s. 6d., 4s., or 4s. 6d. at the outside for a decent tenement. Mr. Riley told them that he gave 150 feet super for living-rooms and 100 feet for bedrooms. Might not those areas be reduced, so that more dwellings with the same accommodation could be placed upon the site. Taking a two-roomed tenement—and the desire for a two-roomed tenement seemed in the ascendant—Mr. Riley said that very few schemes could be made to pay if the charge for the land alone was more than about 5s. per foot freehold. At the time the Peabody Buildings and the earlier dwellings of this type were erected it was estimated that if the annual rental exceeded 3½d. a foot it was impossible to get a financial return. Therefore it came to this, that if these dwellings for the working classes were to be provided, the land must be obtained at far less cost than it could be at present. How that was to be done was for the Legislature to decide. They would all agree with Mr. Riley about those projections in suburban dwellings which extended sometimes considerably beyond the back line and interfered with the free circulation of air. The first block dwell-

ings erected by the Metropolitan Board of Works—in Newport Market, he believed—were built upon what may be termed a *G* plan, that is to say, a centre with two large wings, which permitted the accumulation of vitiated air. That planning was condemned at the time, and he believed had not been repeated. Coming along in the train the other day he noticed that one of these projections had been utilised by the tenant—the coping with boxes for growing primroses, and lattice-work with a little ivy twined round, as one sees in the humblest dwellings in Italy and Spain. He often wondered why advantage was not taken in the country suburbs of these opportunities of growing flowers in such an economical fashion. Mr. Riley told them that the profit on the Caledonian Asylum Estate was only 1.15 per cent. on the gross rental: he did not tell them what the profit was on the net rental. He also said that 7.86 $\frac{1}{2}$ per foot cube was the cost for those buildings. They would all agree, from the manner in which those buildings had been erected, that 8 $\frac{1}{2}$ per foot cube was not an excessive price. It seemed therefore that, allowing for repairs and maintenance in future, if the London County Council could only secure 1.15 per cent. now, it was exceedingly probable that in future there would be scarcely any profit, and that particular class of building might result in loss to the ratepayers. Coming to the cottage buildings, the idea of these cottages would meet with the commendation of everybody who looked at Mr. Riley's plans and elevations. These cottage estates entailed a very large purchase of land. Mr. Riley told them that he allocated something like thirty-three cottages per acre: that meant that each cottage was given something like 1,300 feet. For a cottage to be let or sold at the figure quoted by Mr. Riley it was obvious that the land must be obtained at a very small cost indeed. Mr. Riley stated that the block dwellings had cost 9.8 $\frac{1}{2}$ per cube foot, and the cottages averaged 6.14 $\frac{1}{2}$ per cube foot at Tooting and 4.97 $\frac{1}{2}$ at Tottenham. Probably Mr. Riley could account for the very great difference between the cost of cottages at Tooting and those at Tottenham. Mr. Riley had given them some interesting information, which would be very much appreciated, or depreciated, by the quantity surveyor, as to how he obtained his tenders for cottage dwellings as distinguished from tenders for his block dwellings. He did not employ a quantity surveyor, but prepared a working drawing, a specification and some details, and from these documents first-class builders tendered, and he found that the variations in the contract presented no difficulty to him. He understood, however, some years ago from the Master Builders' Association that they would not tender for any work unless quantities were provided. He should like to ask Mr. Howard Cills whether that was the arrangement made with the Master Builders, and how it was they allowed Mr. Riley to be so

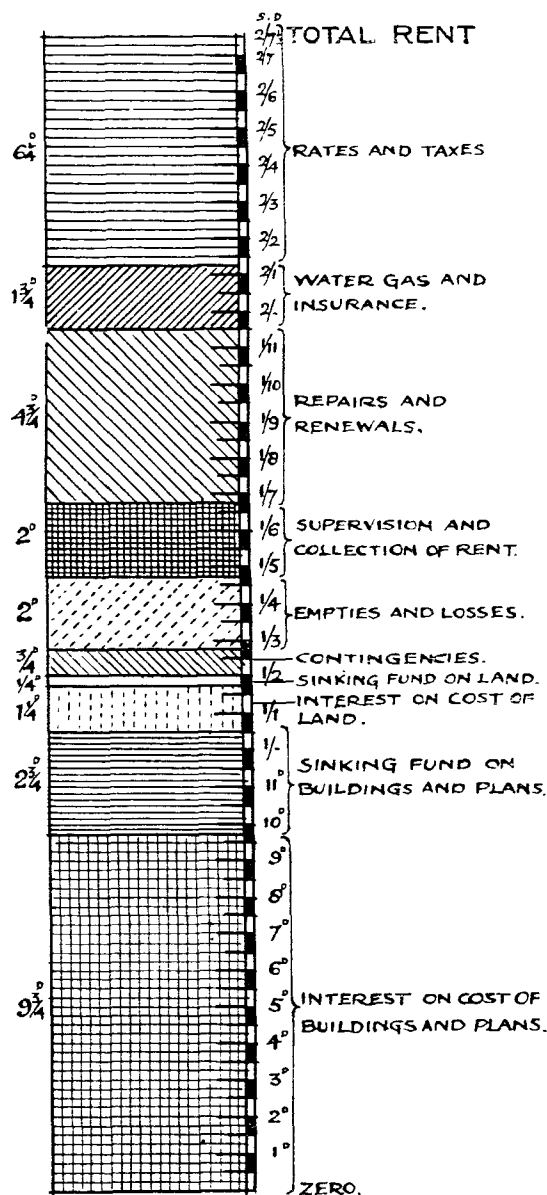
successful as he claimed to be. With regard to the New Cross Car Shed, it had been hinted—and he thought the drawing confirmed the hint—that, to say the least, the London County Council had dealt rather "liberally" with certain provisions of the Building Act. With regard to the Holborn and Strand Improvement they were all very glad to know that the London County Council had seen fit to alter the original conditions upon which they were letting this land, and that they had extended the term of the lease and had given more freedom to the designs. It was very difficult indeed—Paris found it so, and Baron Haussmann found it so—to get tenants to occupy undeveloped, or practically undeveloped or half-developed sites. In his opinion the Council would do well, having regard to the way in which they dealt with the sites in King-way, to make the rents still more progressive—to start with a very low rent indeed and extend that rent, as he believed they did in Paris, until they got the site fully built upon. They would then get their ultimate rent, and, instead of the large proportion of vacant land now to be seen, they would find a repetition of some of the buildings the architecture of which commended itself to most of them. He would conclude by congratulating Mr. Riley on his very useful Paper, and the Council of the Institute upon having invited him to read it.

Mr. RILEY, in responding, said that Mr. Taylor, in very flattering and very kind words, had endorsed what one had repeatedly felt: but it was very gratifying indeed to have it at first hand from a witness who could see the enormous strain to which the Architect of the London County Council was necessarily subjected in carrying out works of any kind whatever. If they looked at their old friend "Gwilt" they would find a definition of "Municipal Architecture." The term was applied to "buildings erected for civil and municipal purposes such as town-halls, guildhalls, &c." They all knew how many of those he had erected! To Mr. Bailey, as a colleague who knew quite intimately the difficulties of dealing with works of this character, he had to express his most cordial thanks and appreciation for the kind words he had uttered. Mr. Simpson, also, he thanked most heartily—the appreciation of a man in Mr. Simpson's position as an architect he was keenly alive to. To his friend Mr. Woodward also he was much indebted. He would try, as briefly as possible, to answer one or two of the points Mr. Woodward had very properly brought to the notice of such a representative meeting. He would not touch on the points of appreciation, but would turn at once to the points of criticism. It was only by acknowledging where we failed, and where we could amend our ways, that we were able in any way to give information that was valuable to others. As regards the sites of the block dwellings which Mr. Woodward suggested were cleared with too much generosity by the Metropolitan Board of Works, one site had been

vacant for thirteen years, and he (the speaker) was suddenly called upon to cover that site. Three efforts had been made to sell it earmarked for housing purposes. Two of those sites had been offered again and again earmarked for housing purposes, and both the Council and the Metropolitan Board of Works before them had failed to get bids which would enable the land to go off for the purpose. This very process, indeed, had been repeated within the last three months with the same result on another site. Earmarking for housing purposes nearly rendered certain sites in London valueless. He hoped to be able to show by a diagram what this matter meant. As regards the question of a workman's rent, of course they were all keenly alive to the fact that if he could be housed at one-sixth of his income (which Mr. Woodward would find was about the economical limit) he could do very well; but the diagram he wanted to show them demonstrated the financial position of a block of dwellings which yielded a rental of 2s. 7½d. per room per week. They were self-contained tenements, and had a scullery, w.c., and other accommodation for each one of the tenements. Out of the 2s. 7½d. the architect was given the capitalised income from 9¼d. to erect the buildings. Let it be realised that the buildings must earn everything—they must earn not only the interest of the sinking fund, but they must bear the cost of the buildings themselves, and the land, the management, rates and taxes, all repairs, insurance and contingencies which would enable these dwellings to be returned to the ratepayers of London free of all incumbrances at the end of fifty-nine years. He thought if they came to put those figures together and worked them out they would see that 9¼d. was about the bed-rock for doing anything useful. When he spoke of the Caledonian Asylum Estate, which was Part III., where land was not written down at all, the profit beyond all the expenses on the past year's working was 1·15 per cent. of the gross rental. It paid for everything, including repairs—and repairs which were calculated on a basis which was supposed to cover the whole period in which the dwellings would be occupied before they were handed over free of charge. One other point he was glad Mr. Woodward had drawn attention to was the area allowed in living-rooms and bedrooms. If he would work out 150 feet and 100 feet respectively he would find that the 150 feet, which allows for the "living" accommodation—that is to say, day living accommodation, at 8 feet 6 inches clear height did not give too much cubic air-space, and in the bedrooms certainly he thought it gave the minimum which was prescribed. As regards the Peabody Buildings he had only to point out that they were subsidised and that the County Council Buildings were not. He would like to explain that the reason why the cost at Tooting and at Tottenham varied from 6·14d. at Tooting to 4·97d. at Tottenham was purely topographical. At Tottenham they used Fletton bricks,

which could be brought very easily to the site; at Tooting Kentish bricks had to be used. These cottages were brick boxes, with very little else. If the brickwork could be done cheaply, the whole

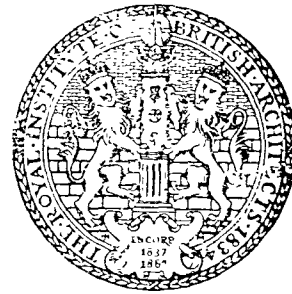
DIAGRAM SHOWING AN INDIVIDUAL CASE OF INCOME AND EXPENDITURE PER ROOM PER WEEK.



NOTE.—The diagram represents in alternate vertical divisions above zero the estimated average rental per room per week on a block of buildings, one division representing one halfpenny.

To obtain the influence of any desired item upon rental, take the space occupied by that item. This will represent in halfpenny the portion of the average rental per room per week used up by the item in question.

question was solved. Perhaps there was no other professional man in the world who experienced more criticism of his work than an architect, whether in private practice or in public service, and domestic architecture perhaps offered the widest scope. At all events, the architect who built cottages for the working man got an amplitude of criticism. Good, fair, healthy criticism they could all appreciate, but they would generally find that, should any hitch take place, some one had to make an explanation, and should that some one be an architect, he would not only be asked why he had designed in such a manner, but most likely why he could not build for, say, £200 what he estimated would cost £250. Architects, however, had to cultivate broad backs. He had known an estate on which cottages were built according to the estimates, and precisely according to the scheme on which the finances were based (he did not do the financing for his—the financing came from another quarter), without incurring one penny of embarrassing extras on the original proposal. After the houses were ready for letting only a few tenants were obtained. The local Press criticised the houses in the most severe manner, and they were practically boycotted. Why would they not let? Because, it was stated, the rooms were too small for one man to stretch himself comfortably at full length. Doors and windows were too small to admit bedsteads, and the doors, moreover, had quite a peculiar appearance because the panels were not according to stock pattern. Pianos refused to enter openings of such narrowness. The windows had such small panes that they might have belonged to prison cells. How could anyone see out of such windows, or how could light get in? Surely, said the Press, all these were bad errors on the architect's part? Possibly. But the sequel was very interesting. Rents were lowered: with the result that bedsteads, pianos, and furniture of extraordinary dimensions for such small families found an entrance without even chipping the paint off the arrises of the same narrow doorways which had previously stood in the way of the letting of the houses. Thus it would be seen that the rent of a tenement bore a distinct relation to the width of the door; the windows with the small panes really looked quite well, and the light in the room had become so dazzling as to necessitate the purchase of elaborate curtains to subdue it. It was well however not to be discouraged, but to accept criticism and be oneself its critic; to retain for one's own use the good, and cheerfully drop the bad. It had become rather the fashion lately to hunt the City Watch. He was in the position of the City Watch. A man with the robe of office had got, like Hercules, his Nessus shirt; but when the time came for him to drop into oblivion as an ex-official, he hoped to do so without repining, as many better men had done before him.



9 CONDUIT STREET, LONDON, W. 1, 24 April 1909.

COMPETITIONS.

Reading County Offices Competition.

Members of the Institute proposing to enter for this Competition are requested to communicate with the undersigned before taking any further steps in the matter.

IAN MACALISTER, *Secretary R.I.B.A.*

CHRONICLE.

Amendment of the London Building Acts.

The following letter bearing date the 5th March and addressed from the President of the Institute to the Chairman of the London County Council, has been handed in for publication:—

SIR,—In the London County Council (General Powers) Bill of this Session, section 5 provides for an amendment of the London Building Acts.

From the Report of the Building Act Committee of the London County Council in the autumn of last year, recommending the proposed Bill, I quote the following sentence:—

“Under the London Building Act of 1894 the walls of all buildings must be of the thickness prescribed by the first schedule of that Act, with the effect that the walls of buildings mainly constructed of steel or reinforced concrete have to be of a greater thickness than is necessary for stability, thus unnecessarily diminishing the floor space of the buildings. The Committee therefore recommend ‘that application be made to Parliament in the Session of 1909 with a view to the amendment of the Building Act of 1894, so as to facilitate the use of steel or reinforced concrete in the construction of buildings and to make any necessary provision with regard thereto.’”

The Bill was sent to the Council of this Institute for consideration and it was found that it went far beyond the question of dealing with external walls.

Later on, a Conference was called by the Superintending Architect of the London County Council to consider the provisions of this Bill. The Bodies

invited by him to send representatives were the Councils of the Royal Institute of British Architects, the Institution of Mechanical Engineers, the Surveyors' Institution, the Concrete Institute, the British Fire Prevention Committee, the London Master Builders' Association, the Institute of Builders, and the District Surveyors' Association, and all these attended. The Institution of Civil Engineers was also invited but, I understand, declined to attend. It may fairly be assumed that *the Bodies invited were those whom the Superintending Architect thought were most competent to deal with the Bill in question.*

On the 14th January the first meeting of this Conference after an exhaustive discussion passed a resolution with only one dissentient vote, "*that the scope of the Bill should be limited to the enclosing and party walls.*" As, however, there was but one sentence in sub-clause 11 which deals with party walls (with which sentence my Council concurs), it may be taken that the resolution dealt only with the enclosing, *i.e.* the external walls.

I need only say in passing that at subsequent Conferences the details of the Bill were considered but with the expressed condition that this consideration was subject to the above resolution.

On the 18th January the said resolution was considered by the Council of this Institute, when it was resolved "that this Council unanimously endorses the resolution passed at the Conference on the 14th instant and urges that the draft Bill should be amended accordingly," and a copy of this resolution was forwarded to the Clerk of the London County Council on the 20th January.

The Council of the Institute of Builders took a similar view and sent it to the County Council.

On the invitation of the Building Act Committee the Conference sent representatives of each of its constituent parts to lay the case of the majority before the Committee, and this was done on the 15th February. It was then stated to the deputation that the Superintending Architect would be later asked to lay his views before the Building Act Committee; but, so far as we are aware, no opportunity was ever afforded any of the Bodies represented at the Conference to hear what was stated or in any way to answer it. We have had no official communication as to the result of the Committee's deliberations, but we learn that they have decided to proceed with the Bill in opposition to the views of the Conference.

The Council of the Royal Institute of British Architects have considered the situation thus created. It must be manifest to you that when a Conference of Bodies selected by the Superintending Architect has passed an all-but unanimous resolution against the Bill as drawn, that the technical opinion of experts who are daily in touch with building in London is very gravely opposed to the legislation suggested, and that that opinion is entitled to great weight.

My Council are in absolute sympathy with the desire to provide a manner of dealing with the external walls of buildings other than that prescribed in the first schedule of the existing Act, as suggested in the quoted report of the Building Act Committee; but the present Bill deals not only with these walls but with the whole of the internal iron or steel skeleton construction of buildings, which internal construction has hitherto been left to the responsibility of building owners and their professional advisers subject to the supervision of the District Surveyors. It may be broadly stated that the multitude of buildings erected in the past thirty years with girders and columns could not be repeated under the proposed enactments.

My Council submits that there is no necessity whatever for any such interference with this internal construction.

The District Surveyors have represented to the Building Act Committee that the proposed enactments will materially increase their work to the extent of about four times what it is now, and they ask that their fees should be increased in a like ratio, and submit a scale which on any large building would involve the building owner in a payment of possibly hundreds of pounds for such fees. They say that "the immense amount of labour involved in the design and delineation of the proposed buildings would have to be followed in every particular by the District Surveyor," and "would necessitate the minute supervision of buildings during erection."

Assuming this all to be correct, it need not be pointed out that it would in like manner involve a great deal of extra labour on the architect to supply what is necessary and to go into the detail with the District Surveyor.

The architect has no desire that building owners should be saddled with this great extra cost.

Among other things it is also provided (sub-clause 29) "that before a building can be commenced the complete drawings of a building showing the details of construction of all its parts, the detailed copy of all calculations of loads and stresses to be provided for, and particulars of the materials to be used shall be deposited with the District Surveyor." In practice this would involve a delay in the starting of a building of it may be some months while heavy ground rents may be accruing due, involving again a very heavy loss on the building owner, and as the adoption of steel framing and concrete construction is mainly resorted to in order to save time this delay would be a grave matter.

In addition to all the above the proposed enactments will add considerably to the cost of building *per se*.

My Council submit to you that this unnecessary addition to the cost is a heavy tax on building operations in London which falls directly or indirectly not only on building owners but on tenants; it tends to restrict building operations, and therefore affects the community; it throws a grave responsi-

bility on District Surveyors and on the London County Council.

The other point that is of grave importance is the appeal (sub-clause 32) from a decision of the District Surveyor. Such appeals will be on very technical matters affecting building construction and should be heard by the technical Tribunal of Appeal established by the Act of 1894.

I have refrained from dealing with the details of the section, confining my remarks to grave questions of principle involved.

It would seem to be very regrettable that this Bill should be prosecuted at heavy expense to the ratepayers and opposed at equally heavy expense.

I have therefore to ask that you will kindly submit this communication to the Council, and to express the earnest hope that in view of the decision of the Conference your Council will adopt the view of the representative Bodies here mentioned.—I am, Sir, your obedient servant.

ERNEST GEORGE, *President R.I.B.A.*

Architectural Copyright.

The Diplomatic Conference between the official delegates of the various countries adherent to the Convention of Berne, which was held at Berlin in October last, resulted in important changes being made to certain articles of the Convention. The British Foreign Office, in consequence of the action of the R.I.B.A., withdrew its previous opposition and adopted the views of the other signatory countries. Architecture has thus at last been accorded its proper place between the sister arts of painting and sculpture (*vide* Article 2 revised) and is recognised as having the same rights to legal protection.

A Committee of the House of Commons has been appointed to examine and report up on the proposed changes before the new Convention is ratified by Parliament, and the Council of the Royal Institute of British Architects has been invited to give evidence before this Committee. They have accordingly appointed Mr. John Belcher, R.A., *Past President*, and Mr. John W. Simpson, *Vice-President*, to represent them.

Members of the Institute are reminded that the desirability of protecting the work of architects in the same way as that of painters and sculptors is protected has been urged for more than thirty years by the representatives of the profession in all civilised countries. The International Congresses of Architects at Paris in 1878, 1889 and 1900, at Brussels in 1897, at Madrid in 1904, London in 1906, and Vienna in 1908, have each passed unanimous resolutions to this effect; and similar resolutions have been adopted by the Congresses of the International Association of Art and Letters held at Paris, Madrid, Neuchâtel, Milan, Barcelona, Antwerp, Berne, Monaco, Turin, Liège, Bucharest, Mayence and elsewhere, from 1878 to the present time.

British architects have always been very tolerant towards artistic plagiarism, which may perhaps be considered as a tribute (sometimes awkwardly expressed) by the copyist to the originator; but that deliberate appropriation of an architect's work which it is desired to prevent, cannot be defended, and in no way advances the standard of professional knowledge and attainment.

The view it is desired to maintain is, shortly, that the building commissioned by the employer is but a reproduction on suitable materials of the architect's design on paper, just as a bronze or marble statue is but the reproduction of the sculptor's sketches and clay models. Both reproductions require the supervision and skill of their designers to bring them to perfection.

It will be remembered that, under the existing legal precedents, the ownership of the architect's sketches, notes, drawings, and calculations from which the building is erected, is vested in the employer; while the corresponding documents and models of the painter and sculptor are protected.

All members of the Institute who have had reason to complain of the unauthorised reproduction of their drawings, or of their executed work, whether as regards plan-arrangement, elevation, or otherwise, are requested to communicate short particulars to The Secretary R.I.B.A., without delay. Such communications will, if so desired, be treated as confidential.

Expressions of opinion from the Councils of Allied Societies would, if sent at once, be of great value, and any observations they wish to make upon the desirability of architects retaining the copyright of their drawings when compulsorily deposited with Local Authorities (in regard to the execution of architectural work by such Authorities) would be opportune at the present moment.

Advice to Architectural Students.

A Joint Committee of the Prizes and Studentships and Records Committees of the Institute have drawn up a memorandum consisting of a number of detailed and explicit suggestions for the guidance of young architectural students in the pursuit of their studies, and especially for those entering for the Prizes or holding one or other of the Travelling Studentships in the gift of the Institute. The document is printed below, and will be found appended to the Prizes and Studentships pamphlet just issued, under the heading "General Advice to Architectural Students."

1. The student of architecture cannot begin too early to observe and analyse buildings for himself. By comparing building with building he may form his judgment on an actual basis and obtain initiative and power.

2. Wherever the student lives—in London, a provincial city, or in the country—he will easily find an ample body of material to investigate and record.

3. From the first he should bear in mind this

double purpose of his work: investigation as part of his own education, and the recording of his observations so that they may not be lost.

4. It is undesirable to hesitate as to what to begin upon. Practically any piece of good work—a cottage, a farm gate, a piece of furniture, or a staircase—will afford practice for a beginner.

5. After a time some students will find it stimulating to take up special interests, and to collect drawings of old ironwork, plaster, woodwork, and the like. The following of one trail for a time brings an intensity of understanding not to be otherwise gained. The London student has an overwhelming mass of material from which to select—Roman remains of London, Classic and Renaissance remains, or reproductions in the museums; and detail of existing buildings of the eighteenth century, such as balconies, fanlights, balustrades, &c.

6. After some experience has been gained a selection of subjects may best be made from the point of view of analysing construction and of forming a body of observations as to the best way of doing the several parts of ordinary modern buildings—such as reasonable windows, doors, and skylights, suitable ways of finishing roofs at eaves and gables.

7. From the historical aspect, records of buildings or works of art which are perishing by decay or about to be destroyed will have special value.

8. The best way of studying existing work is by the method of "measured drawings." In preparing these the chief aim should be to analyse and explain the construction and special characteristics in an accurate and clear manner.

9. In preparing the drawings it is desirable to aim as far as possible at some degree of uniformity of method from the first: a uniform series is much more valuable, and can be referred to more easily than heterogeneous notes. It is of great importance that the student should endeavour to present his observations in a clear, workmanlike, and unaffected way. (If shadows are indicated on measured drawings they should be worked out by rule.) Preconceived ideas as to what is artistic drawing are misleading, but accuracy is always safe. Avoid eccentric lettering, borders, &c. A good model for lettering can usually be found on the title-pages of old books; and such models should be studied.

10. As much as possible drawings should be finished on the spot or while the object is still accessible. It is unadvisable to collect a body of notes and sketches with the hope of working them out afterwards.

PRIZES AND STUDENTSHIPS.

11. Later, and especially if he should obtain a travelling student-ship, the young architect is advised to investigate some special branch of architecture. He may analyse some famous building, or some special features like domes, or vaults, or towers; or he may form a group according to geographical distribution, age, purpose, materials, &c. Very little systematic work has been done by English architectural students of late years in Athens, Rome, or Pompeii; and whole classes of work, like English and French Romanesque, Greek and Roman work outside Athens and Rome, the Medieval architecture of Switzerland, Austria, Hungary, Byzantine architecture of Italy and outside Constantinople, the Arab art of Egypt, Palestine, North Africa and Spain, remain uninvestigated.

12. The student is particularly advised to maintain a course of historical reading *pari passu* with the sub-

ject he has in hand, since it is well to remember that buildings are the outcome of social as well as constitutional conditions.

13. Before settling down to the piece of work chosen to be measured the student is advised to obtain all the information he can as to other work or works by the same architect.

14. It should be remembered that draughtsmanship is a means to an end. The study of old buildings becomes useful mainly through mastery of structural facts. A long period spent on a single fine building is of more value to the student than the same time spent over many places and buildings. Several months' study of one building allows the student to cultivate the instinct for proportion, for the right use and disposition of ornament and mouldings, and their relation to the structural facts. The nature of materials, their colour and texture, should so far as possible be indicated. The dimensions of bricks and their jointing, and of all masonry, and all wall and roof coverings, constitute an essential part of working drawings.

15. In measuring a building the student should set himself the task of preparing working drawings from which that building could be rebuilt, when the materials and methods shown are no longer customary or traditional. The parts of a building which it has been impossible to measure should be clearly indicated. Measured drawings should be supplemented with photographs where these are obtainable, but photographs should not take the place of measuring.

16. Work should be begun with plans and section. The elevations are the outcome of the structural problem. The most useful sketches are sectional and elevational records to scale, fully dimensioned, with notes and a key showing relation of the whole to the part. Books of paper squared to scale are useful in this connection.

17. Memory sketches are useful to strengthen the memory, but they are of little or no value as authentic records.

18. If the records thus made are to have their full value, they themselves must be preserved. The student from the first should have in view the formation of a collection which may ultimately be deposited in museums or libraries, even if they are not published.

19. The student would derive great benefit from carefully measuring up Classical or Medieval remains and utilising his knowledge of the style and period in working out a restoration on imaginative lines, basing his methods on those of the Prix de Rome students.

20. Students are further recommended to acquire some knowledge of the language of the country which they propose to visit, and to observe a general attitude of courtesy towards officials and attendants. They should procure a good guide-book and authentic maps of the district, as well as a pair of field-glasses and a pocket-compass, as the north point should always be shown on a plan.

The Wellington Monument in St. Paul's.

The following correspondence has appeared in *The Times*:—

9 Conduit Street, W., 16th April 1909.

SIR.—As President of the Royal Institute of British Architects, I feel it my duty in the interests of the public to draw attention to the condition of the Wellington Monument in St. Paul's Cathedral.

Since its re-erection in the nave serious defects have appeared, and some time since its insecurity and the danger of increasing the load above the arch were pointed out. Owing, however, to the elevation of the then Bishop of Stepney (the chairman of the committee) to the Archbishopric of York, further action was stayed.

We have again communicated with the "Monument Completion Fund" Committee on the subject, but have been unable to elicit any information whatever as to their intentions.

My Council have, therefore, no alternative but to state that in their opinion—

1. It would be dangerous to place an equestrian statue probably weighing several tons on the top of this structure.

2. The existing settlements render any attempt to strengthen the monument for carrying an additional weight a serious undertaking.

3. Any proposals for such work should be submitted to expert opinion.

Apart from the risk of further damage to the monument, there are æsthetic questions involved. In the case of a public monument of such importance, both as regards its historical value and as representing the work of a renowned English sculptor, every effort should be made to prevent any tampering with it which might lead to serious disaster.—I am, Sir, yours faithfully,

ERNEST GEORGE, *President R.I.B.A.*

10 King Street, Covent Garden, W.C. 19th April 1909.

SIR,—The Secretary of the Royal Institute of British Architects wrote to me some time since asking in the most general of terms for information as to the intentions of my committee. I informed him in answer that when the committee met I would lay his request before them, and give him such information as the committee allowed me. A fortnight ago, on my return from a visit to Spain, I found a letter from the Secretary asking when a meeting of the committee would be called, whereupon I informed him that the committee were likely to meet within the next three weeks, when his communication would be laid before them. It was no duty of the committee to meet expressly to answer a roving request for information as to a design which had been exhibited in public for many weeks in the year before last; and I am surprised that the President of the Royal Institute of British Architects could not wait until the time I mentioned had passed before writing to the Press. As to his suggestion that any proposals for work on the monument should be submitted to expert opinion, he must have a very low opinion of the intelligence of the Dean and Chapter, whose authority in this matter is absolute and sole, if he supposes that they have given their approval to the design exhibited without consulting expert opinion.—I am, yours faithfully,

HAROLD HODGE,

Hon. Sec. Wellington Monument Completion Fund.

In a note which appeared on the 21st inst. *The Times* states that, upon inquiry of members of the Chapter of St. Paul's Cathedral the previous day, its representative was informed that the question of ensuring the stability of the Wellington Monument before the erection of the statue upon it had been fully considered, and every precaution that the highest expert advice could suggest would be taken. The weakness and cracks in the monument were first pointed out by the Foreman of Works to the Cathedral body and had been remedied. It was not apprehended that there would be any difficulty in strengthening the monument so that, while not altering its appearance in any way, it would carry the statue.

The Manchester Education Committee and the Architectural Profession.

36 Spring Gardens, Manchester: 24 April 1909.

By direction of the Council of the Manchester Society of Architects the following letter has been addressed to the editors of the local press:—

SIR,—The Manchester Corporation has for some years past maintained a Drawing Office in connection with the Education Committee, in which all designs for new School Buildings, and for alterations to existing buildings, have been and are prepared. Thus architects practising in Manchester are excluded from this work, and in the case of alterations the original architect may see his work copied or reproduced without any acknowledgment by the Committee. Surely a Corporation is not justified in setting up a department to do the work of an established profession unless it can show clearly that the public will be thereby better served.

The Education Committee has had ample time to prove that its Architectural Department either does or does not justify its existence. Can the Committee point to any superiority either in planning or in architectural treatment; while, as to cost, if the Committee will state the average cost per scholar of the new buildings and will make a full return of the cost of maintaining its Drawing Office, it is submitted that it would at once be clear that its method does not make for economy.

The Manchester Society of Architects recently sent a protest to the Lord Mayor with reference to the new secondary school about to be erected in Chorlton Street in accordance with the method indicated above, but without result.

This new school was planned by the Education Committee as an extension to the existing schools, which were built a few years ago by well-known Manchester architects.

These existing schools provide good accommodation for secondary education at an actual cost, including some deep and difficult foundations, of £43 per scholar. In the design for the new schools the general detail is copied from the old school, and the estimated cost, as shown by the accepted tenders,

and which may be substantially increased, so far is £53 per head—an increase of about 25 per cent.

Architects have at least the right as ratepayers to demand the same reasonable efficiency and economy in the spending of their money, as would be demanded of them in their practice.—Yours truly.

ARTHUR S. BREWIS, *Secretary*.

Town Planning in Germany.

In view of the expected passing this Session of Mr. Burns's Town Planning Bill, the National Housing Reform Council arranged a visit this Easter of over eighty representatives of municipalities and other bodies who will be concerned in its administration to the cities of Cologne, Düsseldorf, Frankfurt, and Wiesbaden, with the idea of getting some hints which would assist them in carrying out the proposed measure. Each of the four cities visited has formulated its own way of dealing with the problem and offers a different point of view. We quote from *The Times* of last Thursday extracts from an article headed "The Science of Town Planning," which discusses the town-development problem in Germany:—

The industrial development of German towns has presented an acute problem for the city fathers to solve; and, untettered by Local Government Board regulations, they have gone to great lengths to encourage the building of houses for the working-classes, and they have taken advantage of the best architectural knowledge in securing that the rapid expansion of their towns shall not proceed on the terribly haphazard lines which characterised the growth of English towns during the industrial revolution of the last century. Town-planning has become an art to which the best minds are bent, and the beautifying of cities is one of the great aims of the municipalities. Spacious streets with three, four, five, or even six rows of trees are to be met with not infrequently; and instead of the trees being planted merely by the footpath, it is usual in the newer thoroughfares to find them arranged in the middle, with a roadway on either side, one being given up to the double row of tram lines. Beneath the shade of the trees will be one or two broad footpaths, a cycle track, a special road for horse-men, and sometimes a track is set aside for motorists—a revelation of arrangement to the visitor who sees these things for the first time.

Assuredly we have much to learn from these students of the problem of the town—a problem which faces every civilised nation to-day; and we shall do well if, in addition to admiring the effect which has been produced, we study well the mistakes which have been made. For mistakes have been made, and are still being made, in the development of these German towns. Not one of the systems adopted could be appropriated and applied to our own manufacturing centres. In no place can it be said that this or that system will fit a town's needs; only the diligent study of all, and the application of what is most suitable, can secure that British towns shall be extended on proper lines which shall combine all the essentials. It was well said, at one of the official receptions given to the party, that the best architect is not too good for this work. . . .

In the hands of the architect of the street plan lies to a great extent the character of the city's growth: whether it shall be prosaic, formless, a thing of rote and formula, or whether it shall be the expression of its citizens' aspirations, an embodiment of its best traditions. Foresight and prudence must make a harmonious blend, and while the needs of coming generations must be studied, the pockets of the present ratepayers must have consideration. . . .

In connection with the English Town Planning Bill, it appears to have been taken for granted that the only people who will object are the landowners. This is not found to be the case in Germany. The landowners there know that the planning of the district is the best thing that can happen for them; and instead of waiting for the municipality to come along and schedule their property, they frequently combine to petition for roads to be planned and laid out, themselves paying the cost. The whole of the land is dealt with as one property, and when the roads are made it is parcelled out in proportion to the various holdings. . . .

What most impresses the visitor to Germany is the universal tidiness. There are no unsightly boardings at every turn—special erections, and not a great many of these, are provided by the municipality for the purpose; and instead of the blank walls of buildings proclaiming the virtues of soap or pills, they are oftentimes treated in a simple yet effective manner which adds much to the dignity of a town.

But with all their planning and all their machine-like organisation, the problem of the housing of the poor has yet to be dealt with. "The price we are paying for the finest town-planning in the world is the destruction of the home," declared one of Germany's housing experts, and it certainly seems so. High price of land, high rents, high taxes make it apparently impossible to provide cottages, and so huge tenements go up; and the working man, like everybody else, finds his amusement and recreation not in the home, but in the street and the cafe. . . .

At the forthcoming Imperial International Exhibition at Shepherd's Bush, galleries have been reserved in the Fine Arts Palace for the exhibition of "first-class works of British, American, and Continental architects." Members of the Institute willing to exhibit drawings are invited to communicate with Mr. C. R. Radclyffe, Hon. Secretary to the Decorative Arts Section, 15 George Street, Hanover Square.

MINUTES. XII.

At the Twelfth General Meeting (Ordinary) of the Session 1908-09, held Monday, 19th April 1909, at 8 p.m.—Present: Mr. Ernest George, *President*, in the Chair; 37 Fellows (including 15 members of the Council), 68 Associates (including 2 members of the Council), and numerous visitors—the Minutes of the Meeting held 29th March 'p 412', were taken as read and signed as correct.

The Hon. Secretary announced the decease of the following Associates:—Charles Thomas Whitley, elected 1870, and Horace Moger, elected 1903.

The decease was also announced, at the age of eighty-seven, of William Candler Reed, *Associate*, elected 1845; and on the motion of the Hon. Secretary, who referred to the advanced age of the late Associate and to his long period of membership, the Meeting resolved that a message expressing the Institute's sympathy and condolence be conveyed to his nearest relatives.

The following Associates, attending for the first time since their election, were formally admitted, viz.:—Noel John Dawson, William Dean, and Frank Dorrington Ward.

A Paper on THE ARCHITECTURAL WORK OF THE LONDON COUNTY COUNCIL, by Mr. W. E. Riley [F.R.B.A., M.Inst.C.E.], Architect of the London County Council, having been read by the author and illustrated by lantern slides, a discussion ensued, and a vote of thanks was passed to Mr. Riley by acclamation.

The Meeting separated at 10.10 p.m.

ARCHITECTURAL SCULPTURE.

By ALBERT H. HODGE.

MR. SPIELMANN, in his lecture on "British Sculptors and their Work," went very thoroughly into the subject, and gave us a very favourable impression of the activity of our sculptors, principally in the direction of the isolated groups and figures. My own conviction is that the architectural side of the sculptor's art is the one from which most advancement will come. In these times, when architecture stretches out her hands to the sister art to aid her in the adornment of her buildings, it were indeed to be deplored should the efforts of our sculptors mar those of the architect. At present we recognise no outstanding influence or school in our sculpture: I do not think, indeed, that we have any school, but rather that we have many sculptors giving us various impressions gathered from all masters and schools, each striving for individuality and originality—two qualities not of the greatest importance in an art movement. I feel confident that there is only one real master in sculpture, and that is Architecture. Architecture alone can direct the true course of sculpture. The masters and great schools of all ages owed their success to her direction and tuition. Phidias, Michelangelo, Donatello, the great masters of Assyria and Egypt, the Renaissance, the Gothic, and in our time a few of the works I mention below, may demonstrate my point. The sculptor must get architectural principles into his work. Whether it be a portrait bust or a group which has been successfully carried out, it will be found to owe its success to architectural scale and to relation of its planes and parts, to good style of workmanship and beauty and refinement of detail—being the same qualities which bring success to a façade.

In the Wellington Monument we cannot tell where the architect leaves off and the sculptor begins. Stevens was intensely architectural in everything he did. His sense of bigness and scale, his treatment of planes, are all to be traced to his knowledge of the mother art. We have with us several fine examples of sculpture carried out under the influence of architecture, which show us how much sculpture benefits by the directorship of architecture. The figures on St. Paul's Cathedral should be studied by architects and sculptors. They are handled in a big manner; their shapes are architectural; their story is told in stone, not in clay, and is written all over them with a chisel. The western pediment is very fine in design and treatment, and it possesses along with the rest of the figure-work distinct qualities which remind us of the best Greek period. Curiously enough the stone ornament fails to reach the same

high standard, it is too much cut up, it is wanting in breadth, and it lacks the health and bigness always found in the best work. It recalls the work of the wood-carver rather than of the sculptor, and when we consider it along with the sarcophagus of the Wellington monument its failings become apparent. Of this sarcophagus I cannot speak too highly. I would even place it before the figures, it is so grand in manner, architectural, and sculptural. All the great qualities are here, and one of our finest pieces of ornament is the result. The monument to the Great Fire has architectural sculpture on it of a high order. Somerset House has also some very good figure-work and ornament. The pediment to the British Museum is one of our good pieces of sculpture, and shows considerable influence of the Greek work, the Fates and also several of the figures from the eastern pediment of the Parthenon are echoed; the work is big in manner, architectural, and worthy of its position. In the Albert Hall and the Royal College of Art, both by the same hand, we possess two buildings in which the architectural ornament is of the highest order and quite in harmony with the fine architecture: it shows distinctly the influence of Alfred Stevens. I would also mention the pediment on the stables at Buckingham Palace, a most truthful and good piece of work. The Charles in Trafalgar Square I need only mention—we all appreciate its completeness in every way. I understand that the horse and rider are in lead and, like the Stevens figure for the top of the Wellington Monument, the Charles is inspired from the Donatello at Padua, perhaps not possessing so much display of movement as its great rival the Verrocchio at Venice, but having architectural design and sculptural qualities, also a dignity of pose and a finer application of enrichment than are to be found to the same extent in the Colleon. The monument to the Crimean heroes in Waterloo Place I look upon as our finest outdoor monument: the soldiers standing in their simple dignity, the trophies of guns and swords, and the architectural bigness about the whole design, convey an impression truly monumental and worthy to commemorate the deeds of heroes. The very fine portrait statues on the University Buildings in Burlington Street show us how architectural the portrait statue can be made. These portraits are really great works. The work of the late Mr. Harry Bates on the Institute of Chartered Accountants ranks amongst our finest, and I consider it the most sculptural and the purest in style he has left us. The figures carrying the corner have all the qualities which make architectural sculpture great. At the sides of the door he has given us a fine piece of acanthus, a plant which I fear is getting somewhat rare. There is also on the building a Justice by Mr. Hamo Thornycroft, R.A., architectural and good in every way. Lastly, I would draw attention to the late

* "British Sculpture of To-day" JOURNAL R.I.B.A., 3 April 1909.

Mr. Armstead's work on the Home Office, and the Albert Memorial, as being in a manner which I think most desirable on our buildings. The works on the Home Office especially are of outstanding merit; their good qualities speak for themselves.

The results of the influences of architecture on sculpture are so apparent in the examples I have spoken of that they should encourage the sculptor to draw closer to architecture. I am convinced that the influence of architecture is the one which our school of sculpture calls for to guide it and purge it of all its mannerisms and keep it on the true path already trodden by great schools of art. When we speak of the Principles of Architecture we refer to the only grammar of art which can help artists in their efforts to make their works truthful and beautiful. Much of the decadent, loose and irregular form, badly proportioned and half-finished sculpture we sometimes see is due, I believe, to indifference to or to ignorance of the Principles of Architecture. Let us ever keep before us the masterpieces which show the united efforts of the architect and the sculptor. The closer sculpture approaches to architecture the more truthful it becomes, and the more complete will be the attainment of its utmost effects of contrast in form, light, and shade.

THE HORSE GUARDS' PARADE.

By ALFRED W. S. CROSS, M.A. Cantab. [F.]

MR. SPEAIGHT'S suggestion for the improvement of the Horse Guards' Parade and St. James's Park should be carefully studied by his fellow-citizens, to whom, appropriately enough, his scheme is dedicated in the hope that "by its realisation dignity may be added to the capital of the British Empire and a suitable position allocated to the memorials of the soldiers who have fought their country's battles."

Before proceeding to discuss the nature and extent of the proposed alterations to one of the most attractive of London's public gardens, it may not be out of place to briefly describe the various mutations through which St. James's Park has already passed.

Prior to the reign of Henry VIII. the site of this park was a bare, undrained field, belonging to the adjoining hospital of St. James, which is said to have been in existence, in one form or another, before the Norman Conquest. Having obtained, by exchange for lands in Suffolk, the buildings and their immediate surroundings, Henry VIII. proceeded, in the year of his marriage to his second wife, Anne Boleyn, to convert them into what Holinshed describes as "a fair mansion and park." Although St. James's Palace was seldom used by the King during the latter years of his reign, yet it became the favourite residence of his daughter Mary, who died there on 17th November 1558.

Settled on Prince Henry in 1610, the palace passed, on the death of that Prince two years later, to his brother Charles, who, after his accession to the throne, frequently resided at St. James's, and it became the birthplace of his children Charles II., James II., and the Princess Elizabeth. But, as Mrs. Evelyn Cecil states (*London Parks and Gardens*), the most brilliant days of this beautiful park began in Charles II.'s reign (with whose private life it is especially associated), when, after being entirely remodelled and replanted by that King shortly after his return from exile, it was first thrown open to the public. Imbued, as he would necessarily become after his long residence abroad, with proclivities for foreign art and foreign fashions, Charles employed French designers and gardeners to beautify and transform the park and bring it into accord with his, thus acquired, predilection for exotic landscape gardening. The main feature of what Pepys called "the brave alterations" then made, was a straight canal, 2800 feet long and 100 feet wide, which, commencing at the north end of Rosamund's Pond (the "Rosamund's Lake" of Pope, Otway, Congreve, Colley Cibber, and many other authors), ran through the centre of the park, and was bordered on either bank by broad regular avenues of elms and limes, such as those known as the "Green Walk," the "Long Lime Walk," and the "Close" or "Jacobite Walk."

Whitehall, a vast array of buildings, occupied the east end of the park, and the wide open space beyond (adjoining the park front of the present Horse Guards) formed the tilt-yard of the palace. Birdcage Walk (where an aviary was first erected by James I.) then, as now, formed the southern boundary of the gardens, and, in the time of Charles II., who had a passion for birds, it was lined with cages placed under the control of the "Keeper of the King's Birds." The Mall (specially laid out for the game of *Palle Malle*) was removed from the other side of St. James's Palace to its present position adjoining the gardens of Marlborough House and Carlton House Terrace, and became for many years the most fashionable promenade in London. Pepys often resorted to St. James's Park to gaze at the "great variety of fowle" which he had never seen before, and here Charles II. increased his popularity by visiting the gardens unattended to amuse himself by feeding the ducks and chatting with chance acquaintances.

As was the case with Louis XIV.'s magnificent pleasure-grounds at Versailles, St. James's Park became for a time a veritable Zoological Garden, for, writing in February 1664-65, Evelyn records that the park was then "stored with numerous flocks of several sorts of ordinary and extraordinary wilde fowle, breeding about the Decoy" (the duck decoy placed near the present Foreign Office), "which for being neare so gritte a citty, and among so gritte a concourse of souldiers and people, is a singular and diverting thing. There were also deere of

several countries—white, spotted like leopards—antelopes, an elk, red deere, roebucks, stags, Guinea goates, Arabian sheepe, etc. There were withy-potts or nests for the wilde fowle to lay their eggs in, a little above ye surface of ye water."

Although the pastime soon ceased to be a fashionable one, the erstwhile exiled King and his followers had introduced skating "after the manner of the Hollanders." Pepys, following the Duke of York into St. James's Park on 15th December 1662, complained that "though the ice was broken and dangerous, yet the Prince would slide upon his skates." Again Swift, writing to Stella in 1711, speaks of the Canal and Rosamund's Pond being "full of rabble sliding with skaitts if you know what it is."

In 1827-29 the park was again remodelled, as its straight canal and regular avenues were no longer fashionable. The alterations then carried out appear to have met with general approval, for whilst a contemporary writer described the result as being "the best obliteration of avenues that has been effected," and added that "the improvements involved a tremendous destruction of fine elms," yet he was lost in admiration of the astonishing ingenuity which "converted a Dutch canal into a fine flowing river with incurvated banks terminated at one end by a planted island and at the other by a peninsula."

The building known as the Horse Guards (so called from the cavalry troop constantly stationed there) occupies the site of the old guard-house erected in 1641 for the accommodation of the Gentlemen-Pensioners (there being at that time no standing Army) who formed the Royal Bodyguard. Designed by Kent and completed by his pupil and assistant, John Vardy, in 1753, its large central archway, flanked by posterns for pedestrians, forms the Royal entrance from Whitehall to St. James's Park, and leads to the ancient tilt-yard, now the parade ground, the adornment of which is the *fons et origo* of the improvement scheme under discussion. But let me quote Mr. Speaight's own words—viz.:

"On looking down the steps (from the base of the Duke of York's Column) to the Horse Guards' Parade the idea of the improvement I am here venturing to suggest came upon me with startling suddenness. I saw, practically, the whole scheme before my eyes—the wonderful vista from the steps on which I stood, one of the features of the improvement, terminating with the massive tower of the Foreign Office: the canal walk extending from the apsidal termination of the Parade to Marlborough Gate, having on either side statuary commemorative of famous military characters in the early history of England, with the Achilles Statue at its eastern end, and the Horse Guards' Parade, itself converted from its present shapeless form into a magnificent *Place* of quiet and dignified design, depending for its ornamentation on the statues erected therein to the memory of military heroes of our own times."

The improvements, thus visualised by the originator of the scheme, have been very ably brought into

practical form by Mr. C. E. Mallows, whose masterly architectural treatment of his colleague's suggestions will, doubtless, receive the cordial approval of his brother architects.

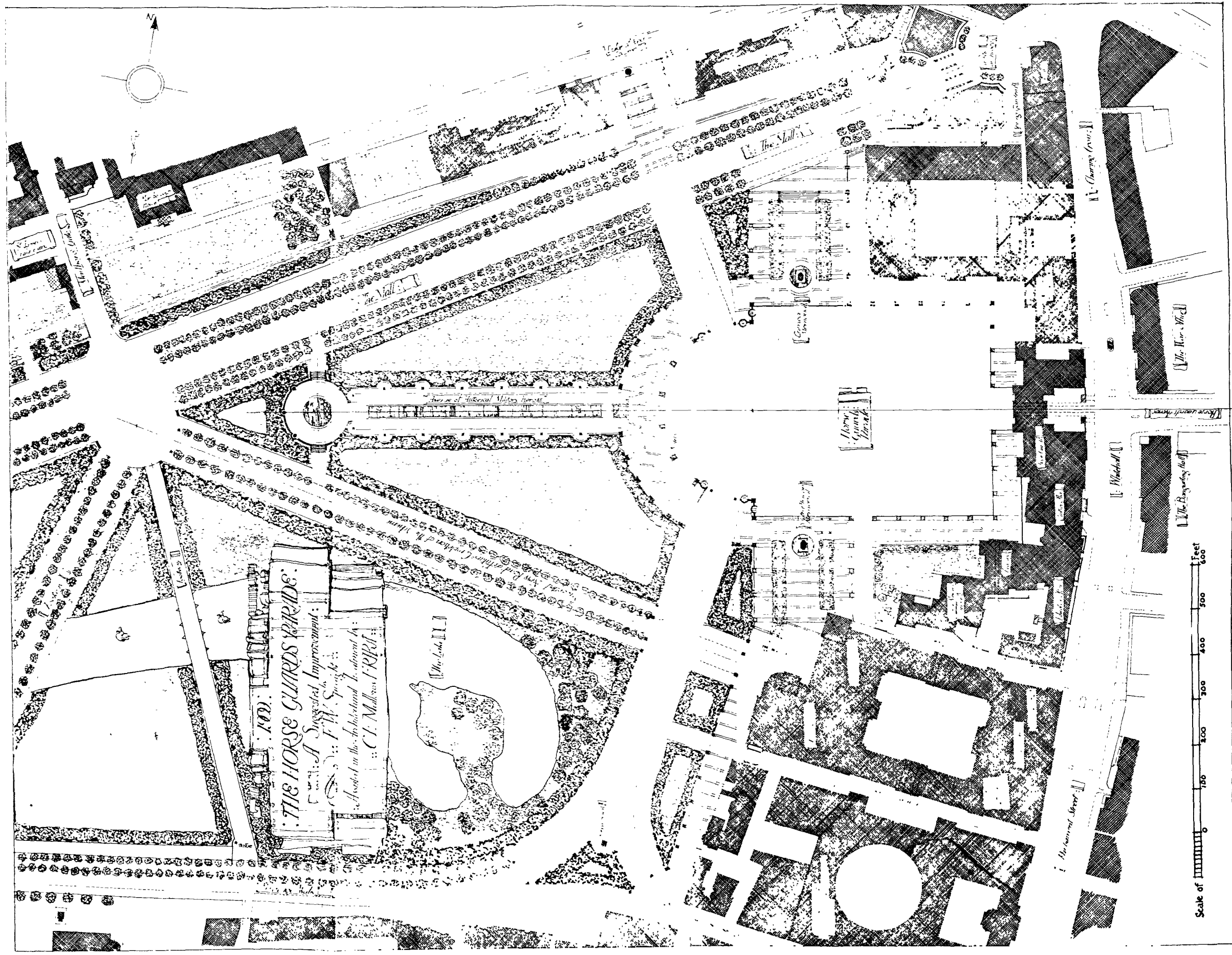
The dominant idea, as expressed in the accompanying ground plan,* is the formation of a huge open space, cruciform in shape, bounded by broad paved terraces (including a large apse-like termination 100 feet wide raised some five feet above the ground), designed to accommodate an immense number of spectators, and to conceal the irregularity, now so painfully apparent, in the outline of the Parade ground itself. The principal features of Mr. Mallows's dignified and monumental "setting out" are emphasised by three main axial lines, of which the central one coincides with the centre of the Horse Guards, and the subordinate ones with the centres of two new radiating avenues placed at the junctions of the semi-circular and straight boundaries of the Parade. Planned to afford the most effective setting to the various groups of statuary with which it is proposed to adorn the *Place*, the ground, which could be thus enclosed at a comparatively small cost, would form one of the largest open city spaces in Europe, and the area available for the purpose of military displays would be at least one-third larger than at present. Isolated, as it would be, from main thoroughfares, and, at least comparatively, free from the disturbing influence of street traffic, Mr. Speaight considers that the new Parade ground would offer unique facilities for the quiet examination and enjoyment of the sculptors' work, which is now so indiscriminately and disadvantageously scattered about the streets and thoroughfares of the Metropolis.

With this idea in view, it is suggested that the Achilles Monument should be removed from its present position in Hyde Park and become the central feature of the apsidal termination of the improved Parade ground. It is also proposed to place the Crimean Memorial (now in Waterloo Place) and the South African Memorial (originally intended for the adornment of the Mall) on the Parade ground in positions which would enable them to become focal points of historic and artistic interest to spectators approaching the park by the new avenues leading to Storey's Gate and the Duke of York's Column respectively.

Smaller statues and equestrian groups assist in defining the cruciform outline of the *Place*, and a canal, 500 feet long and forty feet wide, forms one of the many attractions of the scheme.

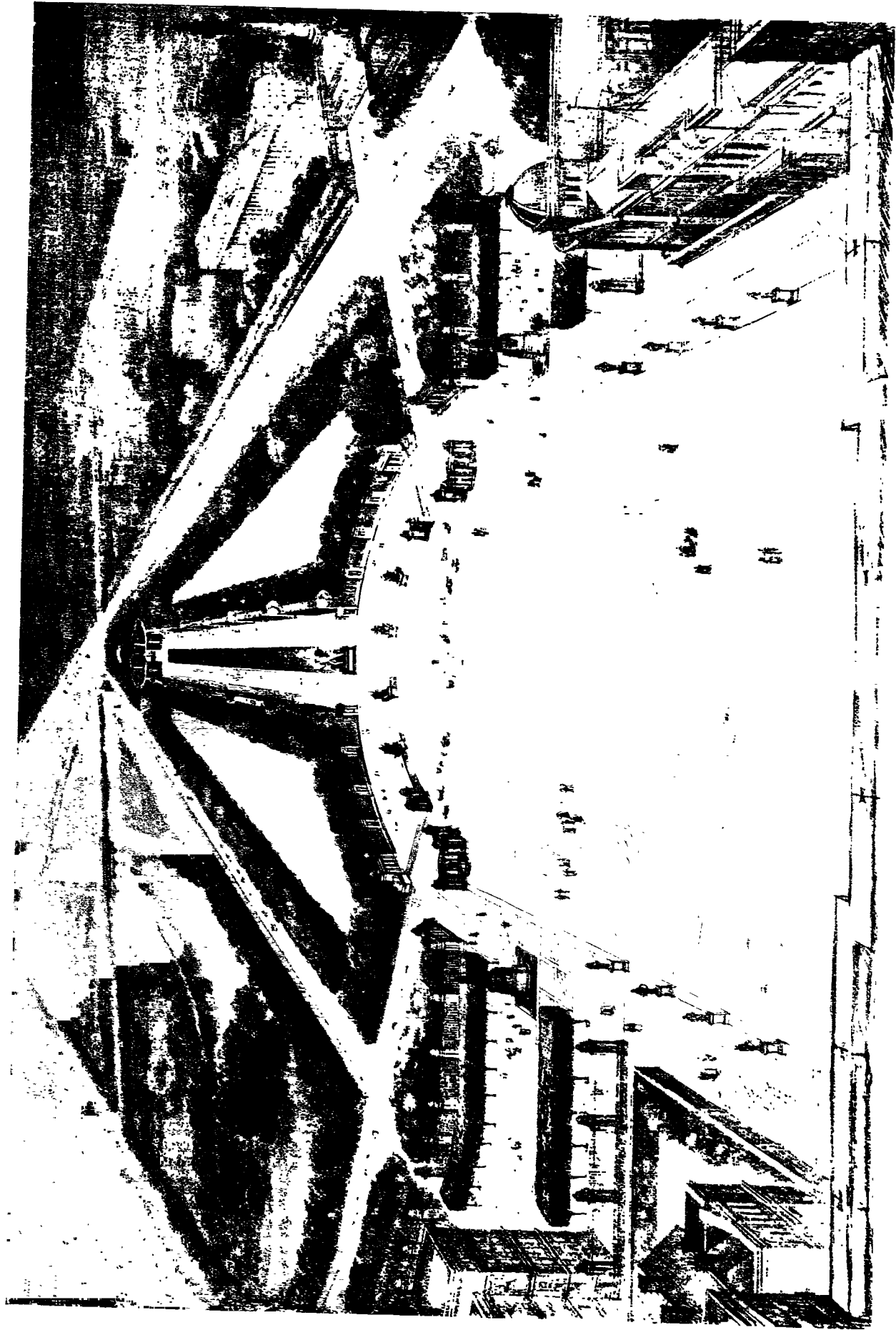
Placed on the main central axial line (extending beyond the circular termination of the Parade ground to the new park entrance at Marlborough Gate), and thus, approximately, occupying the position of the former one, the canal would be separated, on either bank, from the park beyond by broad straight walks bounded by high clipped hedges con-

* The plan and the other illustration here given are printed from blocks kindly lent by Mr. Speaight.



GROUND PLAN OF THE SUGGESTED IMPROVEMENT OF THE HORSE GUARDS' PARADE.

- 1



THE HORSE GUARDS' PARADE.

A Bird's-eye View showing how it would appear if the suggested Improvement were carried out

taining semi-circular recesses or alcoves. Statues commemorative of Britain's military heroes, from the time of King Alfred to Sir John Moore, and arranged after the manner of those that adorn the Siegesallee at Berlin, would be erected in alcoves to illustrate historic and epoch-making periods in the history of the British Army.

Finally, the suggested magnificent new avenue from the India Office to Marlborough Gate brings the whole scheme into perfect harmony with the alterations recently effected in connection with the Queen Victoria Memorial, to which, if realised, it would form an admirably artistic, attractive, and useful complement.

The Times of last Thursday published the following letter from Mr. Eustace Balfour, F.S.A. [T.] on the subject of Mr. Speaight's proposals:—

SIR.—I had hoped that before this some critic would have endeavoured to guide public judgment as to the nature of the proposals which Mr. Speaight has put forward for extensive alterations near the Horse Guards Parade, St. James's Park, and the Mall. Such proposals are always interesting, and, so long as they remain in the academic stage, harmless. Indeed, a more careful study of some of the designs that have been recorded for the adornment of the metropolis would prove of advantage to amateur architects.

In considering any important change in town planning, the designer has first of all to take into account existing architectural features. If such exist of value, their artistic preservation is of primary importance. If none exist of value, greater freedom may be allowed.

Examples of these types of alterations may be found recently in our immediate surroundings. The Marble Arch alteration may or may not be an improvement, but at any rate it cannot be said to have injured any neighbouring architecture, for the reason that there is no neighbouring architecture to injure. Of what will ultimately happen on the north side of Oxford Street and Hay-water Road I can form no guess, but with respect to the corner blocks on the east side of Park Lane and at the south of Oxford Street, care will no doubt be taken to adapt any new designs to the altered situation. Here is a case where the change of surroundings follows the attempted improvement.

Casting our eye further south, we come across what I may term the Hyde Park Corner disaster. The triple archway and screen separating Piccadilly and Hyde Park is in itself elegant and refined. It is also placed in alignment to its surroundings without dominating them. But the Constitution Hill arch, once symmetrically disposed, is now placed at an angle which can only be described by the slang word "cockeye." It fits with nothing, it aligns with nothing, and its own fine proportions are destroyed by its strange situation. Incidentally, one of the results of this so-called improvement has been to make the neighbouring streets the most dangerous in Europe for vehicular and pedestrian traffic alike. All this is the more to be regretted because Sir John Soane, the architect of the Bank of England, designed a magnificent scheme for dealing with this site.

Passing further we come to the recent changes at Buckingham Palace. I do not propose to express an opinion upon these, except in relation to the Palace itself. Every one must feel that these new works show

the east facade of the Palace as even more insignificant than it appeared before. It is not usually known that this portion of Old Buckingham House, which is the only part that the public can see, was "run up on the cheap" to meet an emergency. It is difficult to know which to condemn most, its design, its material, or its insignificance. I, therefore, for one (without venturing a criticism), welcome these new adornments, great as is their scale. For I look forward to the time when public opinion will feel that it is a loyal necessity to rebuild the east front of the Palace, with large extending wings, in a style and on a scale suitable at once to its site and to its use.

Coming now to the Horse Guards Parade, we find a different relation between the proposed decorative surroundings and the existing architecture. The Horse Guards building itself, designed by Kent, is, of its kind, an architectural gem. In size and scale it is very small. It is altogether devoid of ornament. This gem-like quality is therefore produced entirely by reticence and proportion. Thus, whatever is done in its neighbourhood should be done in subordination to these unique qualities. Happily the buildings immediately contiguous to the Parade front are equally small in scale, one of them near by having indeed been designed by Kent himself.

Now if we look at these proportions we find that the height to the springing of the triple arch on the ground floor is 8 feet, and to the cornice marking the first floor level externally 16 feet 3 inches. Any casual spectator may get a good idea of the value of these proportions by observing either the mounted or the unmounted sentries on guard. To this relation between the human figure and architectural feature great importance must be attached.

I have always preached the doctrine that sculpture and architecture are sister arts, united by the closest ties. But in order that these bonds should be carried by each in harmony, it is clearly essential that there should be a relative proportion between the two. No one would propose to put a Colossus of Rhodes or a Bartholdi statue of Liberty astride the dome of St. Paul's. But, if I judge him aright, Mr. Speaight is proposing to use military statues on such a scale that they would be on a level to look in through the windows of the Horse Guards Levée Room. Such sculpture, however perfect in itself, would absolutely dwarf the proportions of Kent's design.

There are many other matters of detail to which I might refer. I will, however, confine myself at the moment to the proposed canal. In reference to this he states, underneath a reproduction of an engraving of the original piece of water sometimes said to be laid out by Le Nôtre, that his proposal occupies the same site as that attributed to the great Frenchman. As a matter of fact the two pieces of water are far apart. The old canal ran from about where the peninsula is now to near the front of Buckingham House. In fact, it occupied the site of the present sheet of water, but was rectangular in shape. The proposed canal, which is only of the tiny dimension of 40 feet in width, runs (taking the levels) up hill to near some point not far from the south-west corner of Marlborough House Garden. On each side of the canal it is proposed to put, in little recesses, the statues of military heroes, looking for all the world like workmen taking refuge in a retaining wall from a passing train.—I am, Sir, your obedient servant.

EUSTACE BALFOUR, F.S.A. [E.]



REPORT OF THE COUNCIL FOR THE OFFICIAL YEAR 1908-1909.

Approved and adopted by the Annual General Meeting, Monday, 3rd May 1909.

SINCE the publication of the last Annual Report the Council have held 19 meetings, of which the Council elected in June last have held 16. The following Committees appointed by the Council have met and reported on the matters referred to them:—Competitions, Prizes and Studentships, Finance, Sessional Papers, Premises, Professional Questions, Board of Professional Defence, Board of Examiners, Fellowship Drawings, Charter and Bye-Laws Revision, Town Planning, Exhibition of Architecture and Decorative Arts, School of Architecture in Italy.

The losses by death have been as follows:—*Fellows*: Cole Alfred Adams, **Obituary.** Ibrahim Shaik Dauid Ahmadi, Alfred Darbyshire, Herbert Davis, William Milner Fawcett, Leslie William Green, Edward Augustus Gruning, Lewis Henry Isaacs, Henry Hill McConnell, James Neale, Francis Haslam Oldham, Edward Augustus Ould, Alfred Henry Paget, Hugh Stannus, John James Stevenson, Frederick Todd, Benjamin Woollard; *Retired Fellows*: David Gostling, John Holden; *Associates*: Ernest Carritt, Albert Edward Gough, Horace Moger, John Peter, William Candler Reed, Francis Adams Sprules, Isaac Steane, Charles Thomas Whitley; *Hon. Corr. Members*: Arnold Guldenpfennig, Alfred Nicolas Normand.

Obituary notices of some of the above have appeared in the JOURNAL.

The Royal Gold Medal was awarded last year to M. Honore Daumet in recognition of his executed works as an architect and for his distinguished services in the cause of architectural education. M. Daumet received the Medal in person at the General Meeting on the 22nd June 1908. It has been decided to award the Medal this year to Dr. Arthur John Evans in recognition of the eminent services he has rendered to the history of architecture by his distinguished work of exploration in Crete. His Majesty the King has graciously signified his approval of the award.

Membership. The following tabular statement shows the present subscribing membership of the Institute compared with that at the corresponding periods of 1907 and 1908:—

Year	Fellows	Associates	Hon. Associates	Total
1907	862	1,254	46	2,162
1908	906	1,288	45	2,239
1909	888	1,344	46	2,278

During the official year since the last Annual General Meeting 9 Fellows have been elected, 82 Associates, and 1 Honorary Associate.

The Progressive Examinations were held in June and November 1908. The Preliminary was held in London, Birmingham, Bristol, Cardiff, Glasgow, Leeds, Liverpool, Manchester, and Newcastle-on-Tyne: the Intermediate in London, Bristol, Cardiff, Glasgow, Leeds, Liverpool, Manchester, and Newcastle-on-Tyne. The

Council desire to record their thanks for the valuable services rendered by the Hon. Secretaries and Examination Committees of the various Allied Societies. The Final and Special Examinations were held in London, and Special Examinations for Colonial candidates were held in Melbourne and Toronto, when 7 candidates were examined and 5 passed. The results are shown in the following tabulated form:—

FINAL EXAMINATIONS	35	68	267	198	69
SPECIAL EXAMINATIONS	38	10	28	175	173
EXAMINATIONS	27		216	79	178

The total number of candidates was 910. The number of Probationers now stands at 2,923, and of Students at 961. The Council again have reason to regret that so large a number of Students remain on the list without proceeding to the Final Examination.

The Special Examination for Colonial candidates will be held this year at Johannesburg, Sydney, and Toronto.

The Ashpitel Prize was awarded to Horace James Ash, who passed the Final Examination in November 1908.

The Council desire to thank the Board of Examiners for the continuance of their invaluable services.

The Statutory Examinations, qualifying for Candidature as District Surveyor in London, and for Candidature as Building Surveyor under Local Authorities, were held in London in October 1908, when 11 candidates presented themselves. Certificates of competency to act as District Surveyors in London have been granted to Frederick William Charles Barker, Alfred Ernest Biggs [A.], Henry Thomas Bromley [A.], Richard Thomas Grove, George Arthur Turner, and William Ernest Watson [A.], and a certificate of competency to act as Building Surveyor under Local Authorities has been granted to George Arnall.

The Deed of Award of the various Prizes and Studentships was presented to the Institute at a General Meeting on the 18th January 1909. At the Presentation of Prizes on the 1st February 1909 an Address to Students was delivered by the President, and a criticism of the work submitted was read by Mr. Paul Waterhouse [F.]. An exhibition of the drawings was held from the 19th to the 30th of January in the Gallery of the Alpine Club, and was visited by 1,332 persons. A selection from the Prize Drawings is now being sent the round of the Allied Societies.

On the 23rd June the Annual Dinner of the Institute took place at the Whitehall Rooms. The Institute was honoured on this occasion by the presence of M. Honoré Dounet (Royal Gold Medallist of the year), the Hon. Sir Schomberg McDonnell, K.C.B. (Secretary of H.M. Office of Works), the Chairman of the London County Council, and other distinguished guests.

"At Homes" were given by the President on the 28th April 1908, when a selection of drawings and photographs representative of the executed works of the late Mr. E. W. Mountford were exhibited; and on the 8th February 1909, when an exhibition was held of the work resulting from the tours of some of the Travelling Students of 1907 and 1908.

Since the issue of the last Annual Report the following Sessional Papers have been read before the Institute:

- 23rd May 1908: "The Architecture of the Bridges of London," by Professor Beresford Pite.
 16th Nov.: "The Development of House Design in the Reigns of Elizabeth and James as illustrated by Contemporary Architectural Drawings," by J. Alfred Gotch, F.S.A. [F.].
 14th Dec.: "The Elements of Design in Internal Decoration," by T. R. Spence.
 18th Jan. 1909: "Public Abattoirs," by R. Stephen Axling [F.].
 15th Feb.: "Town and Country: Some Aspects of Town Planning," by H. V. Lanchester [F.].

15th March: "American Architecture: with especial reference to work at Washington," by Francis S. Swales.

29th March: "British Sculpture of To-day," by Marion H. Spielmann, F.S.A.

19th April: "The Architectural Work of the London County Council," by W. E. Riley [F.], Architect of the London County Council.

The New Charter and By-Laws. The most important event in the history of the Institute during the year was the granting by His Majesty the King, of the new Supplemental Charter in the month of December. The new By-laws to be applied for under the new Charter are now in course of preparation by the Council and will be submitted to the General Body for discussion and approval at an early date.

New Allied Societies. During the course of the year the Transvaal Institute of Architects and the Architectural Institute of Canada have been admitted to alliance with the Royal Institute. The Town Planning Committee have carefully followed the progress of the Housing and Town Planning Bill now before Parliament, and have secured the addition to the Bill of an amendment giving to architectural bodies a *locus standi* as "persons affected" at inquiries into town-planning schemes held by the Local Government Board. They have also promoted the formation of local town-planning Committees by the Allied Societies, and are continuing the investigation and study of the problems of town planning.

L.C.C. (General Powers) Bill, 1909. The Building Act amendment clauses of this Bill have been considered by the Council as well as by the Practice and Science Standing Committees, and vigorous action has been taken, and is still being continued, with the object of securing such alterations in these clauses as will bring them into conformity with the general opinion of the architectural profession. The views of the Council upon the matter were expressed in a resolution which was forwarded to the Chairman of the London County Council [JOURNAL, 23rd January 1909], and in a letter from the President of the Royal Institute to the Chairman of the London County Council [JOURNAL, 24th April].

Eighth International Congress of Architects. The Eighth International Congress of Architects (Vienna 1908) was well attended by British members. The Institute was represented by Mr. Leonard Stokes and Mr. John W. Simpson. The British contribution to the Exhibition of Architectural Works consisted of a representative collection of photographs of recent English Domestic Work organised by the British Section of the Permanent Committee. A review of the proceedings of the Congress, by the Librarian of the Institute (under whose supervision the British Exhibit was arranged), appeared in the JOURNAL for the 6th June.

Exhibition of Grand Prix de Rome Drawings. By the courtesy of the French Ministry of Fine Arts and of M. Jean Hulot, the Council were enabled to demonstrate to English students the methods and achievements of French prizemen in architecture by the exhibition in London last July of M. Hulot's Prix de Rome drawings illustrating his Restoration of the ancient Greek city of Selinus. The exhibition, which lasted a fortnight and created much interest, was held at the Gallery of the Royal Society of Painters in Water-Colours. A Paper descriptive of the work, kindly contributed by M. Gustave Fongères, Professor of Greek Literature at the Sorbonne, and translated by Mr. John W. Simpson, was delivered at the formal opening of the Exhibition.

Resignation of Mr. Alexander Graham. The resignation by Mr. Alexander Graham of the post of Honorary Secretary of the Royal Institute after ten years of office affords the Council an opportunity of placing on record their profound sense of the great services which Mr. Graham has rendered to the Royal Institute during the whole of this period, and of the untiring devotion which he has displayed in the exercise of the important duties of the Honorary Secretaryship.

Appointments. Since the issue of the last Annual Report the Council have made the following appointments:—

The Institute Representative on the Council of the National Trust for Places of Historic Interest or Natural Beauty	Mr. W. A. Forsyth.
The Institute Representative on the Engineering Standards Committee Sectional Committee on "Bridges"	Mr. Edwin T. Hall.
The Institute Representative on the Special Committee of the International Drawing Congress for the unification of signs and symbols used in drawing	Mr. Francis Hooper.
The Institute Representative at the Annual Convention of the Institute of Architects of Canada	Mr. F. S. Baker.
The Institute Representative on the Royal Commission on the Preservation of Ancient Monuments in England	Mr. Leonard Stokes.
The Institute Representatives on the Joint Committee on Water Regulations	Mr. Geo. Hubbard, F.S.A. Mr. H. V. Lanchester.
The Institute Representative on the Tribunal of Appeal	Mr. John Slater.
The Institute Representative at the Local Government Board enquiry on Poor Law Institutions	Mr. Edwin T. Hall.
The Institute Representative on the Court of the University of Sheffield	Mr. J. Alfred Gotch, F.S.A.
The Institute Representatives at the Conference called by the Superintending Architect of the L.C.C. to consider the questions raised in Part 5 of the L.C.C. (General Powers) Bill 1909	Mr. Edwin T. Hall. Mr. John Slater.
The Institute Representative on the Court of the University of Liverpool	Sir William Emerson.
The Institute Representatives to give evidence before the Board of Trade Committee on Artistic Copyright	Mr. John Belcher, R.A. Mr. John W. Simpson.

Grants. Since the issue of the last Annual Report the Council have made the following grants:—

Architectural Association, £100.	W. G. Hunt (Acton Competition), £100.
Architectural Association Sketch Book, £25.	Royal Architectural Museum, £21.
Architects' Benevolent Society, £125.	Sheffield Society, £20.
British School at Rome, £21.	

Competitions. The following have been the President's appointments to Assessorships during the official year:—

Aberystwyth	National Library	Professor Reginald Blomfield, A.R.A.
Bangor	Normal College	Mr. John W. Simpson.
Bury	Elementary Schools	Mr. John W. Simpson.
Colchester	Technical Institute	Mr. Paul Waterhouse.
Hull	Training College	Mr. John W. Simpson.
Ilford	Emergency Hospital	Mr. H. Percy Adams.
Islington	Vagrant and Receiving Ward	Mr. Lewis Solomon.
Kirkwall	St. Magnus Cathedral Restoration	Mr. John James Burnet.
Reading	County Offices	Mr. Maynard Macartney F.S.A.
Shrewsbury	Schools	Mr. Henry T. Hare.
Stoke-on-Trent	Town Hall Extension	Mr. Leonard Stokes.

Copies of the "Regulations" have been sent to the promoters of the following competitions, together with letters requesting that a copy of the Conditions be sent for the Institute Library. In cases where the Conditions have been unsatisfactory, letters urging modifications have been sent to the promoters.

Aberystwyth: National Library.	Banbury: Elementary School.	Bournemouth: Branch Library.
Appleby and Tebay: Elementary Schools.	Bell-shall Bothwell: Council Chambers.	Brighouse: Secondary Schools.
Astley Bridge: Branch Public Library	Beverley: Baptist Church and Schools.	Brighton: Assistant Medical Officer's Residence.
	Blackpool: Central Public Library.	

Bristol: Royal Infirmary Extension.	Great Lever: Branch Public Library.	Pontypidd: Union Offices.
Bury: Elementary School.	Grim-by: Town Hall Extension.	Reading: County Offices.
Bury: Secondary School.	Guernsey: County Hospital.	Romford: School.
Cardiff: County Hall and Offices.	Halliwell: Branch Public Library.	Rowley Regis: Public Libraries.
Cleckheaton: Secondary and Technical School.	Liscard: Library.	Shrewsbury: Secondary Day School.
Colchester: Technical Institute.	Manchester: Congress Church House.	Southbank-in-Normanby: Town Hall.
Disley: Council Schools.	Merthyr Tydfil: Y.M.C.A. Building.	Stockport: Schools.
Dolgelly: Free Library.	Middlesbrough: Library.	Swansea: Cottage Extension.
Eastleigh: Concert Hall.	Moseley: Mixed School.	Swinton: New Schools.
Elland: Mixed Schools.	Motheiwell: Parish Council Chambers.	Tiarno: County Offices.
Glamorgan: County Hall.	Nantwich: Council Schools.	Tewton: Higher Grade Schools.
Gorseinon: Church.	Pontadawe: Guardians' Offices.	Whitehaven: Schools.

The Council by publication in the *JOURNAL* and the professional press have advised members of the Institute not to take part in the following competitions:—Blackpool Central Public Library (advice subsequently withdrawn); Nantwich Council Schools; Southbank-in-Normanby Town Hall; Stanley District Council Offices.

Finance. The Council have the pleasure to report the continued financial prosperity of the Institute, and to point to the balance of £1841. 14s. 4d. of income over expenditure. The sum of £4213. 19s. 10d. has been invested, as against £3035. 19s. 7d. last year. The invested capital is now over £26,000. The statement of Income and Expenditure and the Balance Sheet for the year ending 31st December 1908, prepared by Messrs. Saffery, Sons, & Skinner, Chartered Accountants, and audited by Messrs. Henry Tanner, jun. [F.], and A. W. Sheppard [A.], the Hon. Auditors appointed last year, together with the Estimate of Income and Expenditure for the current year, are appended to this Report (pp. 463 *sqq.*).

REPORT OF THE BOARD OF ARCHITECTURAL EDUCATION.

The Board have held 5 meetings since their last Report.

The List of Books recommended to Students referred to in the last Report has now been issued.

The method of teaching Architecture in schools subsidised by Government has been considered by the Board, and a Committee has been appointed to draw up a memorandum on the subject for discussion by this Board before communicating thereon with the Board of Education.

The attention of this Board has been directed to the fact that the L.C.C. School of Building at Brixton now includes a Day Technical School at which architecture is included in the curriculum and admission to which is restricted to boys between thirteen and fifteen years of age who have passed the sixth standard of an elementary school. The Council of the Institute, on the recommendation of the Board, have communicated with the London County Council suggesting that while training given in this school may be most useful for those intended for the Building Trades, it differs materially from that recommended by the Board for the education of architects.

The question of the advisability of recommending the Council of the Institute to grant exemption under certain conditions from the Final Examination to students of Schools of Architecture at the Universities of Liverpool, Manchester and Sheffield; the Architectural Association, London; King's College, London; and University College, London; has been before the Board and has been referred to a Committee appointed by the Council of the Institute to consider the whole subject of the Institute Examinations.

The following modifications in the Intermediate and Final Examinations recommended by a Joint Committee of the two Boards will come into operation at the summer examinations this year:—

The Intermediate.

The following specific subjects will be omitted from this Examination in future:—

1. Classic Ornament.
2. The Characteristic Mouldings and Ornament of each Period of English Architecture from A.D. 1000 to 1550, with their application.

3. The Orders of Greek and Roman Architecture, with Original Examples of the Principal Orders.

4. Outlines of the History of Medieval and Renaissance Architecture.

Instead of the above, two Papers will be sent in, the General History of Architecture, and a Paper on the purpose of Architectural Features in Relation to the Buildings, to be illustrated by original drawings, and by explanatory sketches.

The Purpose of Specimens.

The following specific subjects will be submitted from the Institutions named.

Subject 2.—The Principal Styles of Architecture, their Features, Mouldings, Capitals, etc., and the Characteristic Mouldings, &c., of the Special Style selected by the Institution. (The Institution's Model, &c., of the Principal Styles of Architecture.)

Instead of the above the following Papers will be sent.

Morning.—The Principles of Architecture: their Theory and Application. Illustrated by drawings.

Afternoon.—A written thesis. Illustrated by sketches.

The Amended Report of the Diploma in Architecture Syndicate at Cambridge University was considered by a Committee of the Board, who suggested certain modifications therein, and on the recommendation of the Board, the Council of the Institute forwarded the said suggestions to the Syndicate.

During the past year the Visitors appointed by the Board have visited the Architectural Association Schools: King's College, London: University College, London: Liverpool, Manchester, and Sheffield Universities. The Visitors have reported satisfactory progress in these Schools.

REPORT OF THE ART STANDING COMMITTEE.

The Committee have held 10 meetings since the presentation of their last Report.

Mr. John W. Simpson was again elected as Chairman, Mr. H. F. Hare as Vice-Chairman, and Messrs. J. S. Gibson and W. A. Forsyth as Hon. Secretaries.

Among other important matters which the Committee have had under their consideration are the following:—

The Government Buildings at South Kensington, with regard to which H.M. First Commissioner of Works intimated to the Committee that no definite proposal existed as to a new road in the rear of the Natural History Museum. He was urged to communicate with the R.I.B.A. before coming to an official decision.

The new General Post Office, as to which Sir H. Tanner was good enough to supply information respecting the external treatment of the ferro-concrete construction.

Southwark Bridge, which the Bridge House Estates Committee of the City has had under consideration. The Council were asked to remind the Corporation that they had on a previous occasion approved the suggestions of the R.I.B.A. in the matter, and to offer their further services when required.

Lambeth Bridge, the rebuilding of which, though frequently discussed by the London County Council, is still postponed.

The architect of the Extensions to University College attended the Committee and courteously produced and discussed his design with them. The Committee were satisfied that everything possible would be done to preserve the amenities of the existing work.

A communication was received from the Corporation with reference to the widening of Blackfriars Bridge. The City Surveyor and the Engineer of the widening attended the Committee and explained the details of the proposals, which were shown by models and plans lent by the Corporation. To the regret of the Committee, it was found to be impossible to make any useful suggestions at so advanced a period of the work. The Corporation was urged to communicate with the R.I.B.A. at the inception of such schemes, when an invitation to advise would be welcomed and some good result might be effected.

The Committee have made several representations to the Council with regard to the proposed completion of the Wellington Memorial in St. Paul's. Neither the Committee nor the Council have at the date of this Report succeeded in obtaining from the Completion Committee any information as to how the constructive problems which arise are proposed to be dealt with. There appears to be no architect in charge of the work, and the facts put forward in Mr. Belcher's letter to *The Times* of 29th October remain uncontroverted. The Council has decided to take public action in the matter.

The Committee desire to express their obligations to Professor Baldwin Brown and Mr. Oldrieve for their valuable communications upon the restoration—or rather preservation—of Holyrood Chapel. The substance of these was published in the JOURNAL for 20th March.

The enlargement of Ilkeston Church, a most interesting mediæval structure, was brought to the notice of the Art Committee, and the architects, Messrs. Naylor & Sale, courteously submitted their plans. It is satisfactory to report that the promoters adopted a scheme by which the historic eastern part of the building is left intact.

The proposed demolition of Bath Street, Bath, formed the subject of energetic representations to the Council. A formal protest was sent officially to the Bath Corporation; the President sent a letter to *The Times* which was supported by a leading article.

A communication from the Council on the subject of proposed alterations to St. James's Park was discussed, and the Committee reported that any scheme should be limited to the ground in front of the Horse Guards' Parade and be considered in connection with the work in progress in the Mall.

REPORT OF THE LITERATURE STANDING COMMITTEE.

Since the election of the present Committee, in June 1908, the Literature Committee have held 7 meetings.

At the first meeting Mr. R. Phenè Spiers was re-appointed Chairman: Mr. Paul Waterhouse, Vice-Chairman; Messrs. C. Harrison Townsend and W. Henry Ward, Hon. Secretaries.

The Committee have during the year sustained a great loss by the death of Mr. Hugh Stannus, for many years a member, who, by his keen practical interest in the Committee's work, had rendered very useful services.

The Measured Drawings Sub-Committee was authorised to continue its meetings, and was then organised into a Special Committee by the Council under the title of the Records Committee.

The Council having agreed to a grant for the printing of a new Catalogue of the Loan Library, the work of its compilation was undertaken by the Librarian, and is completed up to the end of the year 1908. It is now in the press, and will shortly be available for members.

The Committee, at the Council's request, submitted the following suggestions for Papers:—

1. Roman Architecture in the South of France, by Professor F. M. Simpson.
2. Subject to be selected by the author, Professor W. R. Lethaby.
3. Gothic Sculpture in France, by Mr. E. S. Prior.
4. An evening to be devoted to papers on Colonial Architecture—Canada, Australia, New Zealand, South Africa.
5. Professor Hamlin to be invited to read a paper during his visit to England next winter.
6. Architecture of the Balkan States, by Mr. George Hubbard.

At the suggestion of the Council the question of altering the day and time of the meetings of the Committee was considered, and it was unanimously decided to make no change.

In view of the inadequacy of the space for the placing of books both in the Library and Store-room, and the importance of keeping the Library up-to-date, a Sub-Committee has been appointed "to consider (1) whether certain books which possess neither bibliographical nor

architectural interest should be eliminated, (2) whether gaps exist in the collection that require filling, (3) whether the annual grant to the Library is sufficient for its needs."

The Librarian reports to the Committee as follows:—

During the twelve months ending on the 31st March of the present year 252 volumes and 323 pamphlets have been added to the Library of the Royal Institute, exclusive of periodicals, reports, and Transactions of Societies, and parts of works issued in serial form.

The number of works presented to the Reference Library was 91 volumes and 320 pamphlets.

The works purchased comprise 161 volumes, of which 69 volumes were added to the Loan Library.

The attendance of readers in the Reference Library numbered 5309.

The number of works issued on loan was 4,044 last year 3,858.

The number of books issued through the post was 339 last year 254; 225 in 1907, and 121 in 1906).

The number of tickets issued for admission to the Library, other than to members of the Institute or to Students and Probationers, was 106.

LIBRARY STATISTICS 1908-9

DATE.	DAY ATTENDANCES.			EVENING ATTENDANCES.			Books issued on Loan.
	Members.	Non-members.	Total.	Members.	Non-members.	Total.	
1908.							
April	124	184	308	53	90	143	363
May	109	210	319	53	100	153	385
June	112	190	302	25	101	126	319
July	107	202	309	45	31	76	249
August	Reference Library closed.			Reference Library closed.			37
September	89	195	284	24	42	66	331
October	132	285	417	78	176	254	444
November	113	272	385	61	116	177	388
December	106	186	292	52	102	154	310
1909.							
January	134	226	360	58	106	164	400
February	92	217	309	43	127	170	393
March	137	253	390	51	120	171	425
Total	1255	2420	3675	523	1111	1634	4044

Donations of books or pamphlets have been received from Monsieur A. Besnard, Mr. John Bilson, Mr. F. Bligh Bond, Sir John Wolfe Barry, Professor Reginald Blomfield, Mr. D. H. S. Cranage, Mr. Ernest George, Mr. B. Ingelow, Mr. Walter Millard, Philip Norman, Mr. H. L. North, Herr Martin Nyrop, Mr. R. Phené Spiers, and the Director of the Copenhagen Academy of Fine Arts.

Mrs. Arthur Cates has presented 78 volumes of English and Continental guides, and a copy of Racinet's *Le Costume Historique*, to be added to the Arthur Cates Collection.

The Council of the St. Paul's Ecclesiological Society have presented the complete Transactions of that Society.

Mr. B. T. Batsford has presented copies of his recent publications, and thanks are also due to other publishers for presentation copies of recent works.

Amongst the books presented or acquired during the year the following may be mentioned. Sarre's *Denkmäler Persischer Baukunst*; Ernest George's *Etchings of Venice*; Martin's *L'Art Roman en France*; Borrmann's *Die Keramik in der Baukunst*; Robinson's *Celtic Illuminative Art*; Fastenau's *Die Romanische Stuckplastik in Schwaben*; Brière's *Le Château de Versailles*; De Nohlac's *La Création de Versailles*; Magne's *Leçons sur l'histoire de l'Art*; Deshair's *Bordeaux*; Mâle's *L'Art religieux en France*; Beckett's *Danske Herrerborger*; Bankart's *The Art of the Plasterer*; Ohmann's *Architektur und Kunstgewerbe der Barockzeit*; Thiersch's *Pharos*; Fellner's *Le Palais du Ministère Royal Hongrois des Finances*; Holm's *Danske Tuffstenskirker*; Beckett's *Kjøbenhavn's Rådhus*; Schmidt's *Das neue Wiener Rathhaus*; Planat's *Le Style Louis XVI.*; Lethaby's *Greek Buildings*; Beylié's *L'Architecture Hindoue en Extrême-Orient*; Hogarth's *Excavations at Ephesus*; Waldstein & Shoolbridge's *Herculaneum*; Pérati & Brière's *Collections Georges Houtschel Moyen Age et Re-*

naissance); Bond's *Screens and Galleries*; *Fonts and Font Covers*; Lazzaroni & Muntz's *Filarete*; Guérinet's *Les médailles des Concours d'architecture de l'École Nationale des Beaux-Arts*; Contet's *Documents de ferronnerie ancienne*; Storck's *Jydske Grundkirker*; Storck's *Grenaa Egnens Kridtsten-skirker*; T-Square Club *American Competitions*; Fouquier's *Les Grands Châteaux de France*; Garner & Stratton's *Architecture of the Tudor Period in England*; Blomfield's *The "Mistress Art"*; Munch & Schirmer's *Thronhjem's Domkirke*. It may also be noted that a complete set of *Der Stadtebau* has been added to the list of current periodicals.

REPORT OF THE PRACTICE STANDING COMMITTEE.

Nine meetings have been held since the date of the last Annual Report. The following officers were elected at the commencement of the Session:—Mr. W. H. Atkin Berry, Chairman; Mr. W. Henry White, Vice-Chairman; Messrs. E. Greenop and Max Clarke, Hon. Secretaries.

In considering the question of election of officers the Committee was unanimous in the opinion that it would be to the general interest of the Institute that Chairmen of Standing Committees should not retain that office for a longer period than two consecutive years.

The subject of professional advertising which was under discussion at the date of the last Annual Report has been further considered, and a resolution thereon sent up to the Council. At the request of the Council a form of inquiry has been prepared for circulation amongst foreign correspondents as to the practice obtaining in this matter in their respective countries. The replies are not yet to hand.

The question of a revision of the Institute Form of Contract, which was under consideration at the date of the last Annual Report, has been further considered. At the invitation of the Council, a statement dealing with recent decisions in the Law Courts upon the liability of Architects under the existing Form of Contract, was drawn up for the opinion of Counsel. On considering it, the Council decided not to take Counsel's opinion, but adopted the recommendation contained in the Report of the Committee (referred to in the last Annual Report) that the words "so as to" should be substituted for the words "nor shall it" in Clause 30 of the existing Form of Contract, thereby adopting the suggestion intimated in the judgment in one of the cases above referred to.

Numerous inquiries relating to the Institute Form of Contract and Scale of Charges, applications for advice in matters in dispute with clients in legal proceedings and in professional matters generally, all more or less of a confidential nature, have during the session been received both from architects and laymen in various parts of the country, and replies have been forwarded through the Secretary of the Institute.

The subject of members of the Institute giving evidence, contrary in effect to that of the Institute Scale of Charges, in proceedings against brother members, was brought before the Committee, and the opinion expressed that the practice is to be deprecated.

The L.C.C. General Powers Bill has been brought before the Committee and a meeting held jointly with the Science Standing Committee to consider the same. The matter was adjourned. Meanwhile, a conference having been arranged with the L.C.C., at which delegates appointed by the Council of the Institute were present, it was decided to postpone further detailed consideration of the Bill pending the result of such conference. Three delegates from this Committee have also been appointed to serve upon a joint committee of the Council of the Institute and of the Science and Practice Standing Committees to consider this matter.

REPORT OF THE SCIENCE STANDING COMMITTEE.

Eight meetings have been held since the date of the last Annual Report, the average attendance being 13·25.

The officers elected for the Session were:—Mr. Max Clarke, Chairman; Mr. H. D. Searles-Wood, Vice-Chairman; Messrs. Matt. Garbutt and Alan E. Munby, Hon. Secretaries.

Paint Standards. The production of a standard of quality for materials used in the preparation of paints has been further considered, and in view of the importance of the matter, and the large amount of detail involved in making any useful investigation, a Sub Committee has been appointed and is making progress with the necessary preliminary work.

Sale of Cement in Bags of Uniform Capacity.—There has been further correspondence upon this matter which is still under consideration.

Liability of the Architect as to Analyses.—This matter having been referred to the Committee has been carefully considered, and a Report submitted to the Council.

Chairmen of Standing Committees.—A resolution was passed and submitted to the Council to the effect that the Chairman of a Standing Committee should not hold that office longer than two years, and that each Chairman should be *ex officio* a member of the Council of the Institute.

Representation of Committee at Council Meetings.—A resolution upon this subject was submitted to the Council of the Institute.

L.C.C. (General Powers) Bill 1909.—The Clauses dealing with steel and reinforced concrete in buildings were considered both at the Committee's ordinary meetings and at a joint meeting held with the Practice Committee. The matter was then, by request of the Council of the Institute, allowed to remain, for the present, in abeyance.

Proposed Standard Symbols for Electric Wiring Plans.—This matter was referred to the Committee, who reported upon it to the Council.

Mortar Sub-Committee's Experiments.—An interim report on the mortar tests from Mr. Dibdin was presented, and the final report will be presented at the completion of the two years' tests.

AUDITORS' REPORT FOR 1908.

We have examined the Accounts of the Institute for the year 1908 in accordance with the balance sheets prepared by the Accountants and the securities in accordance with the Bank lists and the Scrip kept in the Institute strong box, and we find them correct.

We are pleased to be able to report a very satisfactory year, showing an addition to the invested funds amounting to £4,213. 19s. 10d., being a record for a single year, and the R.I.B.A. is now in the satisfactory position of having over £26,000 in invested funds.

We should like to call attention to various minor points which occurred to us in going through the accounts.

(a) The term "Hon. Associates" is a misnomer, and we suggest the title be altered unless a subscription is no longer demanded from them.

(b) The name of the Donaldson Medallist should be sent each year from King's College.

(c) The question as to whether the funds for prizes could be adjusted to some extent, as some more than supply the necessary annual amount and might accumulate to a troublesome extent, while others are not sufficient for their various purposes and have to be supplemented by the R.I.B.A. from General Funds as mentioned below.

(d) The estimate for the balance for the year, amounting to £1,870, has, we note, very closely approximated the actual balance, which was £1,841. 14s. 4d., a saving having been effected in general printing, advertisements, examination expenses, general repairs, and the JOURNAL. An excess has occurred in medals and prizes, grants to the Tite and Grissell funds, and miscellaneous expenses.

In conclusion we should like to mention the complete and careful manner in which the books and accounts are kept, making our investigations a comparatively simple matter.

H. TANNER, Junr. [F.]
ARTHUR W. SHEPPARD [A.] Hon. Auditors.

24th March 1909.

Income and Expenditure Account of Ordinary Funds for the Year ended 31st December 1908.

SAFFERY, SOY & SKINNER,
Chartered Accountants.

(signed) HARRY TAYLOR Jan 27, 1917
A. W. S. 100-100-1

SALFORD, SONS & SKINNER, Chartered Accountants.	£27446 9 6	£27446 9 6
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(Signed) HENRY TANNER, Jr. [F.]
A. W. SHEPARD [A.]

Dr.	Balance Sheet of Trust Funds, 31st December 1908.		Cr.	
To ASHFHILL PRIZE FUND:—	£	s. d.	£ s. d.	
Capital—29 Shares in the Architectural Union Com- pany, Limited, at £14 per Share ..	280	0 0	By Government and other Securities for total book value of Trust Funds invested ..	12373 0 7
Balance at credit of Revenue Account ..	44	2 6	By Cash in hands of Bankers ..	546 4 7
To ANDERSON AND WOOD FUND (Bequest of Anderson and Wood) —				
Capital—15 Shares in the Architectural Union Com- pany, Limited, at £14 per Share ..	602	0 0		
Balance at credit of Revenue Account ..	112	13 9		
To AUBURN CABLES LEGACY FUND:—				
Capital—£1500 N.W. Ry 4 per Cent. Preference Stock ..	1504	5 6		
Balance at credit of Revenue Account ..	64	19 5		
To DONALDSON TESTIMONIAL FUND:—				
Capital—£72 L. & N.W. Railway 4 per Cent. Consoli- dated Preference Stock ..	89	0 0		
Balance at credit of Revenue Account ..	9	3 9		
To GOWIN BURSARY FUND:—				
Capital—£1000 Caledonian Railway 4 per Cent. De- benture Stock ..	1344	13 6		
Balance at credit of Revenue Account ..	47	11 6		
To GRISSELL LEGACY FUND:—				
Capital—£20,000 S.E.C. & B. Annular Great Indian Penin- sular Railway ..	518	14 10		
Balance at credit of Revenue Account ..	0	0 10		
To LUMBAR FUND:—				
Balance at credit of Revenue Account ..	15	19 6		
To OWEN JONES SOUTH WALES FUND:—				
Capital—£128 Midland Railway 2½ per Cent. Debenture Stock ..	1773	0 0		
£1247 Great Western Railway 5 per Cent. Consolidated Guaranteed Stock ..	2114	12 9		
Balance at credit of Revenue Account ..	69	16 6		
To PUGH MORIAL FUND:—				
Capital—£1070 L. & N.W. Railway 4 per Cent. Con- solidated Preference Stock ..	1342	12 6		
Balance at credit of Revenue Account ..	8	15 10		
To SAMPSON'S BEQUEST:—				
Capital—£600 L. & N.W. Ry 4½ per Cent. Stock ..	760	0 0		
Balance at credit of Revenue Account ..	161	5 2		
To TILLY LEGACY FUND:—				
Capital—£1100 2½ per Cent. Consols ..	1100	1 6		
To WILKES BEQUEST:—				
Capital—£944 18s. 8d. Metropolitan Water Board 4 per Cent. Stock ..	1000	0 0		
Balance at credit of Revenue Account ..	81	14 7		
SAFEBY, SONN & SCHNOR Chartered Accountants.	£12919	5 2	£12919	5 2

Examined with the vouchers and found to be correct. 24th March 1909.

(Signed) { HENRY TANNER, Junr. [A.],
A. W. STEPHENS [A.],

The Council submit an Estimate of Income and Expenditure of Ordinary Funds for the year ending 31st December 1909, exclusive of Entrance and Final Examination Fees:—

Estimate of Income and Expenditure for Year ending 31st December 1909.

EXPENDITURE.	£ s. d.	INCOME.	£ s. d.
Rent, Lighting, and Warming	1660 0 0	Subscriptions and Arrears ..	6635 0 0
Salaries ..	2110 0 0	Dividends on Stocks and Shares and Interest on Deposits ..	840 0 0
General Printing, Stationery, Postages, and Petty Ex- penses ..	960 0 0	Sale of Publications other than JOURNAL and KALENDAR ..	480 0 0
General Meetings, Exhibitions &c. ..	340 0 0	JOURNAL and KALENDAR—	
Housekeeping ..	275 0 0	Sales ..	130 0 0
Advertisements ..	70 0 0	Advertisements ..	1000 0 0
Examination Expenses ..	500 0 0	Use of Rooms ..	1139 0 0
General Repairs ..	125 0 0	Examination Fees—	
Fire Insurance ..	75 0 0	statutory ..	50 0 0
Medals and other Prizes ..	25 0 0	Preliminary ..	550 0 0
Grant to Library ..	150 0 0	Intermediate ..	700 0 0
Other Grants ..	50 0 0	Special and Final (corrected) ..	425 0 0
JOURNAL ..	1625 0 0		<u>1725 0 0</u>
KALENDAR ..	250 0 0		
Contributions to Allied Societies ..	520 0 0		
Miscellaneous —			
Charter and By-Laws Registry ..	200 0 0		
Legal and Accountants' Charges ..	200 0 0		
Contingencies ..	300 0 0		
Balance ..	<u>1675 0 0</u>		
	<u>£10910 0 0</u>		<u>£10910 0 0</u>

DISCUSSION ON THE ANNUAL REPORT.

Mr. LEONARD STOKES, *Vice-President*, in the Chair.

The adoption of the Report having been formally moved by the Chairman and seconded by Mr. JOHN STARR, *F.R.I.B.A.*, the Meeting proceeded to discuss it.

Mr. Wm. Woodrow *F.R.I.B.A.* said that the Annual Report always afforded opportunity of passing some comment upon the work of the Institute, and he begged the indulgence of the Meeting should he be a little lengthy in his remarks. The Report, it was true, did not contain much in the way of information, though no doubt considerable time must have been expended in its compilation. On the first page they were told that certain committees had been appointed by the Council and had met and reported on the matters referred to them, but nothing further was said about those committees. There was the Board of Professional Defence, for instance; they would like to have heard something of what they had reported. The obituary, he was sorry to say, contained the names of some very dear friends of theirs whose loss they all regretted, and the Institute itself would suffer in the loss of their services on various matters connected with its work. Prominent among them was Mr. Cole Adams, Mr. Dalbyshire, Mr. Rawson, Mr. Gunning, Mr. Lewis Isaacs, Mr. Staunus, and Mr. Stevenson. The next reference was to the Royal Gold Medal, with regard to which he should like to say that when the proposal was made that the Medal should be presented to Dr. Arthur John Evans, he, Mr. W., onwards speaking, made a mistake as to the identity of that gentleman and remarked that the Medal might have been awarded to some one better known. Learning, however, afterwards that it was the distinguished Cretan explorer who was intended, he had no hesitation in saying that there is no one more entitled to the Royal Gold Medal than Dr. Arthur John Evans. The next item was the membership. This year there were 18 Fellows fewer than last year and 50 Associates more, the result being that last year there were 78 members more than the previous year, and this year only 38 more. With regard to the Examinations, he found that about one-tenth of those examined in the Preliminary about one-half of those examined in the Intermediate, and two-thirds in the Final were referred to their studies. There were now 961 Students on the register and the number of Probationers stood at 2923. He noticed that the Council objected, as it did last year, that so many Students remained on the list without submitting themselves to the Final Examination. He could only say that he was very glad they did remain on the list, the idea of dumping 961 gentlemen to swell the ranks of the impoverished profession was a matter that called for their consideration. He was glad to see that the President continued those social gatherings which they all so much enjoyed. Coming to the reference to the London County Council (General Powers) Bill 1969, he asked their particular attention to this subject because he considered it one of the most important that the Institute had had to tackle. The Bill had been considered by the Council as well as by the Practice and Science Standing Committees, and the Council had forwarded to the London County Council a resolution expressing the views of the Conference held at the County Hall on 14th January 1969. The resolution was as follows:—'That the scope of the Bill (Part V) should be limited to the construction of enclosing, or external and party walls.' That was reported on the Journal of 23rd January. Then he found that the President of the Institute wrote to the Chairman of the London County Council on 5th March stating that the main objection was

that the Bill dealt with the internal part of steel skeleton construction of buildings, which had hitherto been left to the architects subject to the supervision of the district surveyor. Attention was also called to the fact that the district surveyor's objection to the Bill was based on the fact that the walls were not strong enough. Another objection was the reference back in case of dispute to the London County Council itself. As he understood it, the position of the London County Council Bill was thus:—about the year 1904 the Institute initiated practical and theoretical work of the B.F.A. and what was termed the Public document, which was sent by the Institute to the London County Council, the Institute very properly said, speaking on behalf of the public, that it was a waste of money to erect these steel constructions and at the same time to have to build the walls of the thickness prescribed by the Act. With that they all agreed. He believed the London County Council also agreed and it was notified to the public that there was a desire on the part of the London County Council to bring in a B.I. which would allow architects to construct these steel-frame structures and make the walls less than the thickness required by the Act. It appeared now, however, that the objection raised by the Institute in conjunction with the Surveyors' Institution, the Builders and the Engineers, was that they ought to differentiate between the external walls of the building and the internal. Inasmuch, however, as this new legislation intended to facilitate the construction of these steel buildings without the expense of the thickness of walls, and inasmuch as it must be known to every architect and every engineer that the external part of these structures was part and parcel of the exterior and could not be separated from it, the idea of the Institute or any other body of scientific men saying that the London County Council ought to have control over the external part of those structures but should have no control over the necessary connections between the exterior and the interior, was absurd. The real reason appeared to be this:—architects feared that inasmuch as today they could construct the internal part of their buildings under the supervision of the district surveyor only, without having to go to the Council, they were giving up something, and they say:—'Why should we give up that which we have got in order that we may put ourselves in the hands of the Council?' That was the first objection. He had said at the Committee, and he repeated that to his mind a more absurd and ridiculous requisition on the part of the Institute, he had never heard of. The next reason assigned was that the district surveyors considered that there would be a large amount of extra work placed upon them, and that the remuneration set forth in the Bill was inadequate. That was a matter he agreed they should support. There was an enormous amount of work placed on the district surveyors, and he thought all would agree that the district surveyors should be properly paid for this extra work to be placed upon them. The third objection raised by the Institute was with reference to the Tribunal of Appeal. There seemed to be a muddle made because of the reference to the Tribunal of Appeal that the present Tribunal of Appeal was to be removed. The reference to the Tribunal in the Bill referred however simply and solely, as it distinctly stated, to this particular form of steel construction—that is to say, that if a difference arose between the district surveyor and the architect that difference would be immediately referred to the London

County Council. What, however, would happen if the Institute got its way and the difference was referred to the present Tribunal of Appeal? The present Tribunal of Appeal could not determine it: it was not a question of opinion, it was a question of scientific fact; and the present Tribunal of Appeal would have to refer the matter to an engineer. Therefore the architect who had a dispute with a district surveyor would have to wait a considerable time and incur considerable expense in a reference to the present Tribunal, whereas under the Bill if there was such a dispute it would be referred to the London County Council, who would in their turn necessarily refer it to their engineer. They would probably get the work done quicker, and their clients would be saved the expense of referring to the present Tribunal of Appeal. This was a matter entirely in the public interest, and there was every risk that the Bill would be dropped. There was every risk that the London County Council would consider, and he thought very properly consider, that we were playing with them if after "initiating" the very Bill, or, at all events, initiating in the blue paper to which he had referred the practical outlines of the Bill, when it came to the Institute for amendment and discussion we suggested that a motion should be brought in for dealing with these matters under the heading of "Public Buildings." He should say it was exceedingly improbable that the London County Council would agree. If that were the deliberate opinion of the Institute why not tell the London County Council at once, "We have got your Bill, we have read it, we think it a bad Bill and we want to drop it." The London County Council ought not to listen to any such absurd differentiation as that to which he had referred; and with regard to the District Surveyors and the Tribunal of Appeal he thought that, subject to what he had said, those were reasonable provisions.—With regard to the resignation of Mr. Alexander Graham, which they all very deeply regretted, it would be remembered that last year there was some talk of a substitute for Mr. Graham in the Hon. Secretaryship. The gentleman nominated, however, very properly, and very goodnaturedly he thought, withdrew from what otherwise would have been a contest. He understood now from the Report that Mr. Graham had resigned, and it was proposed that Mr. Hare should take his place. That being so, he felt sure they would all agree that Mr. Hare should have a united support. He could only conclude his reference to this matter by saying that they would miss on the Presidential day that genial presence which had been theirs for ten years in the person of Mr. Alexander Graham.—On page 52 there was a reference to grants. He did not know that they had contributed before to the *Architectural Association Sketch Book*. He did not know what it meant by giving £100 to Mr. W. G. Hunt in connection with the Acton competition. He did not know what the grant of £20 to the Sheffield Society was for; and there ought to have been a note of £40 given to the British School at Athens; it appeared in the Financial Accounts, but not under the head of Grants. On page 53 (Finance), the Council pointed to the balance of £1,841 14s. 4d. on income over expenditure; but last year there was a balance of £2,084 13s. 6d., and he did not know that he could adopt the words of the Report in considering that this showed "continued financial prosperity"; a difference of £243 between this and last year did not to his mind constitute financial prosperity. Then the Report went on to say that £4,213 19s. 10d. had been invested as against £2,035 19s. 7d. last year; but in last year's Report on page 394 it stated that the sum of £4,000 had been invested as against £3,000 in the previous year. He was not quite able to reconcile these figures. Last year it was stated in the Report, page 394, that the invested capital was now £25,796. In this year's Report it was stated that the sum of £4,213 19s. 10d. had been invested, and that now the uninvested capital was over

£26,000. If his figures were correct, unless some explanation were forthcoming, he should have thought that the present invested capital amounted to about £30,000.—Coming to the report of the Board of Architectural Education there was a reference to the method of teaching architecture in schools subsidised by the Government; it had been considered by the Board, and a Committee had been appointed to draw up a memorandum. He hoped the Institute would put its foot down as strongly as it possibly could upon all these professional schools for teaching architecture. It would be remembered that there had been an idea of founding a school of architecture at Cambridge. In his opinion all these technical schools were simply a waste of the public money. There was only one way to educate an architect; that way they all perfectly knew; and he trusted they would be no parties to the schools in question. There was a curious paragraph about the school at Brixton on page 53, which he could not understand at all. It stated that "the attention of this Board has been directed to the fact that the London County Council's school of building at Brixton now includes a day technical school, and the Council have communicated with the London County Council suggesting that while training given in this school may be most useful for those intended for the building trades, it differs materially from that recommended by the Board for the education of architects." As drawn, the paragraph to him appeared rather vague. Then there was a note stating that a Committee had been appointed by the Council to consider the whole subject of the Institute Examinations. He thought that an admirable thing, it was quite time the Institute Examinations were reconsidered, and he must add that the modifications set forth on page 54 in the Intermediate and Final Examinations were to his mind excellent, and just the sort of modifications they had been desiring for many years past.—He considered that the Report of the Art Standing Committee stood out above all the other reports of the Standing Committees as one giving the general body of the Institute all that it could reasonably require. There was a reference to the Wellington Monument, and it was stated that there appeared to be no architect in charge of the work. He thought that the architect of the fabric was Mr. Mervyn Macartney, but whether he had anything to do with the Wellington Monument he did not know. A letter from the President appeared in *The Times* on the 14th April which stated that apart from the risk of further damage to the monument there were æsthetic questions involved, and *The Times* representative in consequence of that letter had an interview on the 21st with the Chapter of St. Paul's, but the Chapter of St. Paul's apparently did not desire the assistance of the Institute, as they stated that every precaution that the highest expert advice could suggest would be taken. They all knew that Alfred Stevens, whom they so much admired, had designed the monument for the place where it now is with an equestrian figure, and that it was afterwards determined by the Committee that it should be placed in the Consistory Chapel on the south side of the Cathedral without the terminating horse. He believed it was common knowledge too that Stevens knew that the Committee had made up their minds that the monument was to be minus the equestrian figure. The then Dean of St. Paul's wrote on the 17th January 1867:—"I can offer no objection to the monument, provided the Duke does not ride into the Cathedral on the top of his own monument." He did not know what opinion the Institute had expressed, whether it was an expression merely as to the stability of the monument itself, or whether it was an objection to the figure which most of them had had an opportunity of seeing; but personally, if he might be permitted to pass an opinion on a work of art, he would suggest that they do their best to conform to the design of Stevens when he knew that the monument was not to be finished by an equestrian figure. It was stated that the Council

had decided to take action in the matter. He should like the Chairman to tell the meeting what public action the Council were going to take. Did it mean simply writing a letter to *The Times*?—As to the Report of the Literature Standing Committee, this was not a very illuminating Report. It was mainly concerned with the Library, and they should all be very glad to know that a new catalogue was being prepared of the Loan Library. The statistics given of books issued and of the numbers using the Library showed that a capital use was being made of the Library, and no doubt it must do, and has done, an immense amount of good. In this respect he took the opportunity of saying that he was quite sure that those who attended the Library had every reason to be grateful to Mr. Dicks for his untiring help, courtesy, and attention.—Coming to the Report of the Practice Standing Committee, of which he had the honour to be a member, it appeared to have been the custom in years gone by as it was this year of most extraordinary state of things, which he had only found out last week, for the Report or a Committee to be drafted and sent to the Council to be edited possibly without any reference to other members of the Committee. He, for example, had seen nothing of the Report until it had been sent to the Council. It had been drafted by the Chairman and the two Honorary Secretaries. That was the custom, and a custom which the Chairman and the Honorary Secretary had carried out. But when it was brought to the notice of the Committee the other afternoon they decided that for the future the report should be submitted to every member of the Committee, before it went to the Council. If he had seen this draft report before it went to the Council he should have called attention to its brevity, to the reference to matters "under discussion," "under consideration," and "under further consideration"—these were phrases that characterised the greater part of the Report of the Practice Standing Committee. Then there was a reference to "the numerous applications for advice in matters in dispute, in legal proceedings and in professional matters generally, all more or less of a confidential nature." Or course they were all more or less of a confidential nature. He should like to have given the Institute generally just an outline, omitting the names, of these various questions of a more or less confidential nature which were submitted to the Practice Committee and he hoped that next year—he did not know that he should be a member of the Practice Committee then—but whoever were members of the Practice Committee he hoped would insist upon seeing the Report before it went to the Council.—Coming to the Report of the Science Standing Committee, this was also full of "considered" and "under further considered." He did not know what to say about the "paint standards," but the Committee seemed to have been overwhelmed with the paint standards. The subject appeared to have been of such a nature that a sub-committee had been appointed, and is making progress with the necessary preliminary work. He did not know how long this matter had been referred to a sub-committee, but that sub-committee was now actually dealing with the preliminary work. When they would get to the final work he did not know. He quite agreed with the observation made by the Science Committee that their Chairman should be *ex officio* a member of the Council of the Institute. It would give the Chairman an opportunity to pop in now and again at the meetings of the Council and see what they were doing and perhaps prod them on a bit.—Coming to the finances on pages 58, 59, and 60—and there was not so much difference he found, in carefully comparing the figures, between the items of this and last year, he noticed that the gas and electric lighting bill had gone up from £97 to £120, and the house-keeping from £180 to £266; there was the grant of £40 to the British School at Athens which he had already referred to, and the Legal and Accountants' charges had gone up from £83 to £120. He found they had spent £114 in connection with the little

trip to Vienna. He thought that was rather a large sum. He personally had thoroughly enjoyed the trip, he did not understand a word that was said, but he had the opportunity of reading the Papers afterwards. The great delight to him was to see the look of surprise of the Chairman of the present meeting, Mr. Leonard Stollis, when he entered the Hall and found he had to occupy an important chair and represent the Royal Institute of British Architects, which latter he would do. There was £130 19s. 4d. for the Hotel Danubius—he did not know what that meant, but doubtless it could be explained.—There was also £76 5s. for the Portraits and £12 30s. in respect of Trustees' Portraits—both of these they were left upon the table, so that he might say. He thought £334 was a rather reasonable figure allowed to the Chairman and his descriptions. He thought the general body would like to know what was now the total amount set aside for the Building Fund. In this connection it was stated that £1299 had been put away this year, but he did not see any reference in the Report of the Finance Committee for building their new premises, and they were not informed as to what steps were being taken to facilitate that operation. Coming to the Auditors' Report he quite agreed as to the adjustment of the total figures. In connection with this Report their thanks were due to Mr. Henry Farmer jun. and Mr. Arthur W. Sheppard for their work as Honorary Auditors. He had served the office himself on two occasions, and he addressed the meeting that it was not a lot of work. They had sat with them, he was happy to say, then and welcomed them as Mr. Taylor and Mr. Northwood and he was sure they would agree with him that the set of reports would do very nicely, as could be the interests and following of the Institute, he hoped they would be with them for many years to come, to do so.—He would now make a few general observations and he would have finished with regard to the Institute itself. His own view was that it would not be a bad thing if they could combine the present Council as a body, with the exception of the President, that it was true they all retired. He was perfectly certain that he had lost, some of them had been members of the Council 10 years, and it was well known that when the governing members of a body retired after ten years there was a tendency with the impression that the work they did was perfect; it reminded one very much of Dickens and his stories to the Communication Office. Whether the present Council felt disposed to retire, which he had not seen, but if they did they would do so fairly and reasonably, they might possibly be asked to come back again next year. At all events, he put it to the present Council that they ought to reconsider the sending out of the House List. Members in the provinces receiving the House List thought those were the men they must vote for, that if they did not vote for them they could not vote for the best ideas of the Council of the Institute. He thought that the House List might in any way be abolished. He ought to make good his complaint that the Institute required to be prodded. Take for example Mr. Speaight's proposal for the House Guards' Parade. It was to be there, a suggestion made to that by the Art Standing Committee, but they did not know what the Institute was doing. If the Institute was of opinion that the proposal ought not to be supported they ought to say so and to give their reasons, if not they should support it and give their reasons for not supporting it. The same with the Town Planning Bill. Of course the Institute ought not to enter into political matters, but they had done very little with regard to the Town Planning Bill. In *The Times* of the 29th April there was a long notice about what the Antiquaries Institute were doing in tackling the Bill in detail. Of course it was a political matter, but it ought to be remembered that should the Bill be passed any Borough Council or the Local Government Board would have the power to lay its hands upon any open space in London or its surroundings, and

upon that open space to build dwellings for the working classes. That might or might not be right, but the mischief was that there was no opportunity of referring the matter to any outside body. The matter was to be settled once and for all by an arbitrator appointed by the Local Government Board, from whose decision there would be no appeal. In an article in *The Times* it was very sensibly pointed out that any man appointed by a public body knew the views of that body, and would naturally fall in with those views. He would suggest that the Institute might have said very properly without forcing themselves professionally on the Local Government Board, that in all questions in dispute the matter should be referred to an arbitrator to be nominated by the President of their own Institute or by the President of the Surveyors' Institution. They might have taken up the matter much more tactfully than they had done.—Then there was another matter with regard to which he thought there was considerable sapience on the part of the Institute—viz. the very large amount of purely architectural work that was being done by certain stores and by certain large furnishing firms. These stores and these large furnishing firms publicly stated that they had under their control and on their departments professional advice. Obviously, their object was to endeavour to convince the client that instead of employing an independent architect he would be much better served by themselves. The inference was that by doing this they would save the commission of the architect whereas they would do nothing of the sort; on the contrary, he ventured to say that no stores and no furnishing firm could keep a staff of architects without paying for them, and therefore, although it did not appear probably as the commission charged by the architect, it appeared in some other way in connection with the estimates. He thought they ought, without forcing themselves as professional men upon these furnishing firms and stores, to make it generally known in some way that the public were under a misapprehension altogether if they considered that by employing these firms they were saving the commission of the architect. This was a matter of great importance for the younger men, and he did not see why the profession should be deprived of that work year after year. Again not only that, but look at the auctioneers. He was constantly having to meet them in connection with matters which were not matters for an auctioneer at all; in fact, in one case where he was engaged, and where there was an auctioneer on the other side, he took up this position, that the Act said "a surveyor," and he should have taken up the position that an auctioneer acting for the adjoining owner was not a surveyor, and ought to have nothing to do with it. These were matters which he thought the Institute should make the public thoroughly acquainted with, and try to put a stop to this gradual ousting of the architect from his proper position. The last word he had to say was about registration. *The Builder* had most wisely and most usefully initiated during the last few weeks a *proposée*, and had done excellent service in sounding the architectural profession as to their views on the Registration Bill. The editorial comments of *The Builder* had been most fair; there had been no attempt to press the matter one way or the other, and the result of it was, he did not quite know the percentage, but he believed that something like 75 per cent. of those who had written to *The Builder* had declared in favour of registration. He happened to know that the reason the Institute had from the very first objected to the Registration Bill was because it was initiated by a younger society—the Society of Architects. There was a certain amount of jealousy on the part of the Institute. He was quite prepared to hear those cries of "No, No," but he happened to know that it was so. At all events that had all been wiped out, and they knew now that the Society of Architects had practically left themselves in the hands of the Institute, and he did think that after the result of *The Builder*

proposée the Institute should now at once boldly say that they had no opposition whatever to offer to the Bill, but, on the contrary, that they would give it their entire support. It was all very well for those who were in influence, and getting to the end of their days, to say that things were all right as they are, but for young men, and particularly for young men in the provinces, he thought the Registration Bill was absolutely essential, and he hoped the Institute would now give it its thorough support. *The Building News* from its very commencement had supported it, they had been a quarter of a century at it, and he hoped the day was not far distant when the seal of the Royal Institute of British Architects would be given to a measure which would protect the profession from the damaging intrusions which were now made upon it.

Mr. H. HARDWICK LANGFORD [A.] said that Mr. Woodward had dealt with the report so exhaustively that there was scarcely room to say anything more about it; but there were one or two things to which he desired to call attention. On page 52 there was a reference to "the Institute representatives to give evidence before the Board of Trade Committee on Artistic Copyright, the representatives being Mr. Belcher and Mr. John W. Simpson. They had all, he believed, received a letter sent by the Secretary dated 6th April headed "Architectural Copyright" and in the first paragraph it was stated that "architecture had at last been accorded its proper place between the sister arts of painting and sculpture." But surely architecture had always been accorded its proper place. It had been recognised by the sovereign in the Institute Charter ever since 1837. But what was copyright in architecture? Was it intended to prevent the application of something to a particular use or purpose because that something happened to have been the successful conception of an architect's mind? If it meant that, then he submitted that the standard of professional knowledge would be materially hindered in its advance. What architects did not use existing examples as the very grammar for their own studies, even imitating what they considered could not be improved, and emulating to surpass the defects sometimes to be found in the best examples. He wanted to understand what the Council meant by architectural copyright. It was inconceivable that a successful architect possessing the generous soul that the study and practice of architecture would produce, in addition to the remuneration justified by their scale of charges, would condescend to receive copyright fees. He suggested that they should drop entirely any idea of bumbling about copyright in architecture. He wished to refer to a matter in the Report of the Practice Standing Committee, of which he had the honour to be a member: "The subject of professional advertising which was under discussion at the date of the last Annual Report has been further considered." &c. In the revised By-laws a passage was to be interpolated in the declaration to be signed by members, viz., "and that I will not advertise my name either in any newspaper or otherwise." It would be interesting and instructive to the Practice Committee to be given an illustration as to what "or otherwise" could include. There was a limited liability company, a sort of supplementary one to Stubbs', as he was told by an official in that office, called the Architects' Technical Bureau. This company sent out letters with prominent headings bearing the names of well-known architects, members and Fellows of the Institute, one a past Vice-President. That these gentlemen should allow themselves to be exploited in this bold, blatant fashion, when the Council were laying it down that members should not advertise their names in any newspapers or otherwise, showed that they were actually parties to their names being advertised in this manner. He did not object to advertising; he could see nothing wrong in it, but if they were to legislate upon it and make rules for themselves, let them at least be fair and not allow members of their body to advertise their names

in the covert fashion he had called attention to. He hoped they would be favoured with some explanation about that, or some statement from the Chairman to the effect that this method of advertising was objectionable. It was satisfactory to know that after three years' persistent efforts of the Practice Committee they had succeeded at last in convincing the Council that it was necessary to remove those three monosyllables; nor shall it be clause 30 Conditions of Contract and to substitute the three monosyllables, so as to "in the existing Form of Contract. It had been pointed out to the Council that there were other words requiring alteration, particularly in the arbitration clause, which said that an arbitrator sitting upon a matter of reference to him shall consider the matter as if he had given such certificate, opinion, decision, &c. &c. It had been given" (Clause 32 *idem*). Was that possible? Let anybody read that sentence and see if they could read into it anything tangible, comprehensible, or sensible; it simply caused trouble, gave business to lawyers, and deprived the arbitrator of the real point for which he was called upon to exercise his judgment and discretion. One more remark he wished to make. The Hon. A. G. G. suggested that the title "Honorary Associates" should be altered so long as they paid a subscription. He hoped that suggestion would not be acted upon, because although they were Honorary Associates, they were often present and spoke upon different matters. It had never been suggested that they objected to pay names, and given, and he did not see that they should be exempt from contributing to the funds of the Institute.

Mr. W. R. Davison [L.] said that after the interesting speech of Mr. Woodward it seemed unnecessary to say anything further in the way of criticism. His criticism, on the face of it, seemed so very complete, and Mr. Woodward, he was sure, would have the sympathy of the majority of members in all that he had said. There was one particular vested interest perhaps that in his general attack on vested interests connected with the Institute he had not touched upon and that was his own official appointment as permanent annual critic. If they turned up the last five or six Annual Reports they would find immediately after the preliminary business Mr. Wood's rising to say a few words, his few words running into a good many pages. He owned that he should be very sorry indeed to see that particular vested interest touched. There was just one point, however, in which that might be a little bit of an injury to the Institute. It was all right as long as they had a man like Mr. Woodward; but he might acquire a prescriptive right to it; other people might do the same, and it was quite possible that in the hands of an unscrupulous Council, which Mr. Woodward suggested might be possible, they might have an annual critic who would, by skilfully avoiding the real point, so soothe the ears of the meeting that they might possibly miss the really important points of discussion. Their ears had been very pleasantly tickled that evening, and they had enjoyed it, but it was possible that if the tickling were continued on the same point it might become unable to shift the point of the tickling. There was one matter upon which Mr. Woodward had not touched, at any rate in the last few Annual Reports. He was quite sure he would have the sympathy of the younger members in urging that they should have a larger voice—he read that into his remarks—in the management of the Institute. There was one point which had not been touched upon—viz. the receipts from the Examinations. There was every year a clear profit of £1,200 or £1,300, which came entirely from junior members entering the Institute. Not a word had been said about that £1,200 or £1,300. What did these junior members get directly in exchange for that? They got certain privileges, of course; but they got absolutely no voice in the management of the Institute. It seemed to him, at any rate, that that payment should be recognised as of value to the Institute and it should be boldly faced that the Insti-

tute did make a profit of that kind, and rightly. At the same time, it was a fact which should be acknowledged by all the members of the Institute. As to the financial arrangements connected with this Report, there were several other points which he thought Mr. Woodward might have touched upon with advantage. There was, perhaps, one or two other things of having the same or the vote by year, because there was not a possibility that his objections would be respected, and that they would not hold out long enough, and the time of having been a good deal stronger than they were in places, too, as to the plan's profit, the improvement to the Institute, he felt sure that the words of criticism should have been very much stronger, but of course they had all been explained in previous years. Particularly with regard to the management of the Institute. He thought the way the Institute was managed was decidedly contrary to the Institute's official contract with it. He had a periodical of the excellence of the Institute, which absolutely paid its own expenses, and it was arranged that the Institute should pay for it, and it was a London. There was another matter touching upon the Institute, which brought out a point that Mr. Woodward had overlooked strangely enough, and that was that there was an annual income of £1,000 from the payments collected to the Institute. Why should it be £1,000 exactly? He presumed there was some sort of contract with something to the payment of that particular sum. It seemed to him the Institute, as an institution, had no authority on that point. If that was so, she was only going on presumptive evidence—that that it was a fiction, made a certain amount of profit. Why should not the Institute still rather add to its financial importance and take that profit into it? He asked that those points should be carefully considered. He thought that they were all very much indebted to Mr. Woodward, and he was sure he would not mind the few remarks he had made with regard to him.

Mr. Edwin T. Hoar [L.] said: We have every year to thank our friend Mr. Woodward for his searching and most useful criticisms. He always draws attention sensibly to points which require consideration, and which are of interest to every member of the Institute. Before I come to his remarks I would like to refer to the last speaker's observations. He spoke of the considerable sum which is paid in examination fees, but I do not know if I correctly gathered that he suggested that those who paid the fees should have some control of the management of the Institute. I think it would be a rather top-heavy proceeding if that were done. I suppose in every society, learned or artistic, which has students, they necessarily have to pay fees, and I should think that they do so because they think those fees are well invested in entering for the examinations for which they pay the fees. I should like further to say that the Council most thoroughly appreciate the great services which are rendered by the permanent officials of this Institute, and I gladly say that those services are appreciated not only in words but in deeds. With regard to the advertising and the £1,000 referred to by the last speaker, I may explain that until a few years ago we received £250 a year for advertisements. We thought it better to revise that arrangement, and a Committee of the Council took pains to get tenders from various people, and we made such terms that we got a progressive payment for our advertisements until now it reaches £1,000 a year profit for the Institute, leaving somebody else whose business it is to do the advertising to decide what profit they can out of it. I may mention that we have had remonstrances from the advertisement contractors, who say that it is far too much, and ask us to make a reduction. We have held them to their bond, and I think you will agree that it was the right and proper duty of the Council, which has the management of your funds, to get as much as they could and to adhere to the bargain entered into. I sympathise with Mr. Woodward's criticism that the Council does not give

enough detail in its report. I think that is very much to the detriment of the Council, because if the General Body knew one tithe of the labours the Council undertook in the interest of the Institute, I feel sure there would be infinitely more appreciation of their work. This report, I agree, is too meagre; it does not express anything like the work that is undertaken. Many members of the Institute appear to think that to be a member of the Council is for the glorification of the men who are on that Council, and that they derive some great benefit out of it. It is, however, no exaggeration to say that some of the busiest men of the profession who are on the Council devote labours to the service of that Council which, if they were remunerated in the ordinary way of the scale of charges of the Institute, would come to from £1,500 to £2,000 a year for each one of them. I do not like to refer to myself, but I regret to say I am on twelve committees, and others are in the same position. If you will consider what it means this sitting on numerous committees charged with great responsibilities out of which no personal gain is made of any sort or kind, you will see that members of the Council are striving to advance the interests of architecture and the interests of the Institute that they do it ungrudgingly, and at an immense sacrifice of time and labour. — We have been criticised with regard to the matter of "Town Planning." I am not on that Committee, but I know that the Council has been most active in every stage of their proceedings. They have interviewed Ministers, and they have obtained in the Bill a recognition, a *locus standi*, for architecture in respect of the town-planning scheme or, I think, every city in the kingdom. That is following on the lines Mr. Woodward thought should be done, and it represents a great merit. Then again, in another department, with the Local Government Board, the Council has been most jealous to try and conserve the rights and privileges of architects in respect of their remuneration and position. The Local Government Board are contemplating issuing a Form of Agreement to be entered into by every public body with the architects they employ, and among other things they are leaving the remuneration a blank sum. A deputation from the Council waited on the President of the Local Government Board to point out to him the evil that would result: local authorities not knowing what that meant would be almost certain to advertise and ask the architects for how little they would do the work. I pointed out the gravity of the matter, and the Council deputed members to see the President of the Local Government Board and suggest that there should be a note appended to the agreement to the effect that the remuneration of the architect should be according to the scale of the Royal Institute of British Architects. That is the work that is done behind your back, but solely and entirely in your interests. Another inquiry of the Local Government Board was as to whether the architect should be supreme over the works he designed, or whether he should not have associated with him an engineer, who should not be under him, but working in equal authority with him. The Council sent a member to the Local Government Board to impress upon them that that was a wrong position. I had the honour of being that member and gave evidence before a Commission. I insisted that the architect was the chief expert, that no engineer could know what he had in his mind in devising a big scheme, and that the engineer should be subordinate in every particular to him, and that he alone should be the master builder, the architect of the place. That was a work undertaken by the Council again entirely in your interests with a view to conserve the position which architects properly take in this kingdom, and which we hope to rise day by day, and which we are always concerned in looking after. Then again we are asked, What does the "Board of Professional Defence" mean? It means that that body advise architects who submit then cases to them so as it is possible to show them their right position and to avoid entering into

litigation where such is unwise, and if they are unhappily embarked in litigation, to help them in every way they can. All advice is given gratuitously, but, surely, in the interest of every member of the Institute. It was owing to the Board of Professional Defence that the grant of £100 was made to Mr. Hunt, and as the matter has been referred to I will make some observations upon it. As regards Mr. Hunt himself, I had never seen him until he came before the Board of Professional Defence. Mr. Hunt was striving for a principle which the Council held to be entirely in the interests of all practising architects, and that is, that if a public body employ an architect to do work he should be paid for it, and that they should not be able to get out of it by some quibble as to whether he had been appointed under seal or not. In this case words have been used by Mr. Langton which I do not think are fair. Mr. Hunt did everything in his power to get his appointment under seal. The document was drawn up and agreed to between him and the Council his employers; but on a change of the Council, the new body refused to sign the document after he had done all the work. The Committee of Defence said, "That is an unjust position," and we tried to help Mr. Hunt when he fought for the principle which was in the interest of everyone in this room, and we granted him a hundred pounds towards his costs. Was that not worthy of the Institute? That is the work which the Board of Professional Defence does. — Then, again, there is the Competitions Committee of the Council, over which my friend Mr. Hare presides. Will anybody say they have not done good work in the interest of every member of the Institute? Wherever there is an injustice attempted to be perpetrated in any conditions, they strive to argue politely and if necessary argue strongly in order to protect the position of the architect and to prevent him from being treated as if he were a footman. Is that not work which should be done? It is work which takes up an immense amount of time. It is work which is very assiduously done, and it results in raising the position of architects. Promoters are beginning to realise that architects are not to be treated anyhow, because there is somebody looking after them and protecting their interests.

Mr. Woodward: That is just the explanation we desire.

Mr. Hall: Quite so; and, as I began by saying, I think that Mr. Woodward is right in asking that these reports should be more full. I think, too, I may safely say that they are to be more full in future, because the more you know of the work that is done by the members whom you every year elect as the Council the more you will appreciate it, and what is the result of it? The result is that the Institute stands in the public eye to-day ten times higher than it stood twenty years ago. Why is it? It is because your elected representatives are always taking the high standard that the architectural profession is a dignified profession which must be treated with as much respect as the legal or any other profession. — The next point criticised was the question of the Charter and By-laws, and observations were made with regard to registration. May I remind you that the Supplemental Charter has been granted: it has been granted in pursuance of a policy unanimously adopted by the Institute and unanimously approved by all the Allied Societies. It is the loyal duty, I submit, of every member of the Institute to see that that Charter has fair play, and to assist in the passing of the By-laws which will be presented to you within a few weeks. These By-laws have been the result of consideration by a Committee and by the Council for some months, every word of them has been weighed and considered, and when they come before you I hope they will not be received in a carping spirit, but will be looked upon in the light of compromises, that they are the result of considering all aspects of a case. Under the Supplemental Charter a new class of Licentiate is to be created

have altered are not simply the three words mentioned. The point was this: it was agreed when we settled this with the Builders that the Institute should be responsible for his own mistakes, and not that the architect should be responsible for the builder, and we said that if the architect gave a certificate it should not be to relieve the builder in any way of his own mother wits, that the building owner could not see the architect instead of the builder, for the builder's mistakes or errors. That was a sound principle. A year or two or three years ago said the clause was ambiguous—we consulted our self and we came to the conclusion that it was ambiguous, and we introduced words into the clause which have made it clearer. We have had twenty suggestions to a further clause, and a good many have come before the Practice Committee. But the Committee have quite acquiesced in their view, the Council have not, after very careful consideration because we have to consult the interests of everybody and even the Builders about these things, and we have done that which we believe is the best in the interests of the members generally. With regard to the title of Honorary Associate, that title is conferred by the Charter, and therefore it cannot be altered. Whether you should make an Honorary Associate pay an annual subscription or not is another question. But the Council have had it most carefully under consideration, and they have decided to make no change. It was altered, I think, along other things, that many of our Honorary Associates by paying a salary do not that they had a personal as well as a proprietary right in the institution, whereas if they paid no subscription you would hardly get an Honorary Associate to come on the committees at all, he would look upon the title as one of those titles which are given for nothing and which are of no value, whereas many of these Builders—painters, sculptors, and others—constantly come here. It is very nice to have these subscriptions, these gentlemen do not go to it, and it unfortunately gives them a greater interest—there is one other point I might answer as to the Building Fund. The same alluded to the Building Fund, that most of it in the financial statement, and the other funds are left free for the Institute to deal with as it thinks fit.

Mr. J. R. Noyes, of Derby, asked about the remarks from the point of view of provincial members. There were three points which specially affected them. The first was on page 52, in connection with appointments to professorships. They naturally bowed to the obduracy of the London Council appointed to these professorships. But they on the provinces respectively stated that they might have a certain amount of consideration in connection with provincial professorships. The next point was in connection with the report of the Art Standing Committee, on page 55. There it was recommended that in Derbyshire had been visited by a member of the Art Standing Committee to enquire as to the condition of the church. This was done in the most friendly spirit, or I might be asked was that in case of action or that kind of reputation, the architects might have the pleasure of visiting the church in company with the Institute representative instead of having afterwards that the Institute visited the building. In this particular case, the architects would have been only too thankful for the opportunity of consulting with him. The other point was in connection with the subscription of 14 shews. Members in the provinces considered that they did not get more as much credit for the Institute as those in town. This was, of course, to their disadvantage, and they wondered whether some day or other the point might be taken into consideration that the subscription for those outside a certain limit should be a little less than for those who had the advantages of town membership.

Mr. George Herbert, of S.A., referring to the paragraph in the Report about Mr. Alexander Graham's resignation of the Hon. Secretaryship, asked how to suggest that a letter should be sent to Mr. Graham expressing members

appreciation of the distinguished services he had rendered the Institute during the ten years he had filled the office of Hon. Secretary. The other point he wished to mention did not appear in the Report, but he should like to be allowed to refer to it because a misapprehension might be created by Mr. Horsburgh's remarks about the Architects' Technical Bureau. Some members might assume from those remarks that the Advisory Committee of the Bureau were seeking to advertise themselves. As a member of that Committee he could assure everybody that no such thing had ever entered their heads. They held that position with the view of helping or helping the younger architects in the provinces, and they said that as to the materials which could with comparative safety be used in their work. The point raised by Mr. Woodward as to the stores and furnishing firms which advertised professional advice was a very serious matter; it was growing more and more serious as the work was gradually falling into the hands of these advertising firms, rather than into the legitimate hands of the architects. The Council, he thought, ought to take some action in this matter. The mere fact of advertising that they gave professional advice was most misleading. Professional advice must be disinterested advice, and it was impossible for an architect to be retained by any town-building firm and paid by that firm, and yet to give the clients of that firm disinterested advice. On that point the Council ought to take some strong stand in the interests of the profession. As to the proposition taken by *The Builder*, the issue was extremely interesting. There had been some 2,500 replies, and not more than 202 were against registration. If there was any other like that proposition throughout the profession, a favour of registration, he was inclined to think the Council would some day or another—and he hoped in the near future—have to take some definite steps in that direction.

Mr. J. Niles, of Hammersmith, said that Mr. Hall's speech having taken the form of a reply, or it might be called a spirited defence of the Council, he felt as if he were speaking in contention, but he thought it pointed to the desirability of a general revision of the policy of the Council. The Council was apt more to wait for criticism and then to reply, than to open up to members matters in question before they were settled. He was not sure that the matter of the contract form was submitted to the members before the revision was completed, or whether it was still to come before them, but it was Mr. Hall told them that there were many suggestions a year on it, it seemed a suitable subject to discuss. He had a suggestion—I might be the first. In Article 3 of the Agreement there was a space for filling in the name of the architect, and it provided that in the event of his death or inability to act that clause should apply to somebody to be appointed by the employer, to whom the contractor did not object. He suggested that in putting the form again they should leave room for a second architect to be nominated at the signing of the contract—that is to say, the architect shall be A.B., and in case of his death, A.C.D., or in the case of his death, A.E., or some other one. The reason was that an architect might like to know who was to handle his unfinished work. That would be especially applicable in the case of partnership. The question of the London County Council Bill had been very much dealt with, but few were inclined to agree with Mr. Woodward that in the power of the Council was to be based upon calculations, these calculations would be useless unless they applied not only to the external framework, but to the whole of the structure. He was at a loss to understand how to deal with them otherwise. As regards the burning question of registration, *The Builder* reported that only one-half of the people who were invited to reply did so. Registration was a catchword, and as Robert Louis Stevenson said, "We live, not by bread alone, but by catchwords." The objects the Registration Bill was aiming at would, he thought, be attained more readily and more

clearly by the Institute through the new Charter than by the Bill which had been advocated for so long. He hoped that as the Associates and Fellows of the Institute had joined in making the new Charter, both Associates and Fellows would join in carrying out the Charter. It was, he thought, a distinct advantage to the Council that Associates had the right to vote on that Charter as it was then a constitutional responsibility for it. The room of their support would, he hoped, be the whittling-down of all the outsiders who were clamouring under the Charter. In that way the Institute, instead of being overruled by a Red Star of Bill, could in itself become the registration authority.

Mr. MAX CLARKE, referring to the Report of the Science Standing Committee, said that Mr. Woodward's criticisms about the point question only went to show that he knew nothing about that question at all. The matter had been discussed and the members of the Committee had disagreed so much as to what the preliminary work should be and how it should be carried out that they had appointed a sub-Committee to try to decide that question, because even the chemists themselves did not feel quite at one as to how the analysis should be carried out. As to the Science Committee's Report which he would like to ask the Council why the paragraph giving an interim report as to the mortar tests was not presented—viz. "An interim report of the mortar tests from Mr. Dodkin was presented and the final report will be presented at the completion of the two vials tests." The Council had a perfect right under the by-laws to cut these reports and to delete or add anything to them, and in this case they had deleted the particular paragraph he referred to. If they did that, however, the document ought not to be called the Report of the Science Standing Committee; it should be stated that it had been revised or edited by the Council. Then might he suggest that a sentence should be added to the Report of the Board of Architectural Education as to the London County Council teaching architecture at their technical schools? From the paragraph as now drafted it did not appear very clear what the Institute were driving at, but if it were stated that the London County Council were going to teach architecture then it would be quite plain. If architecture was going to be taught by the London County Council—and they all knew it was taught in a sort of way at the Polytechnic—it would simplify the action which the Council had taken very considerably. He should like to make a few remarks about the London County Council Bill, because from the very beginning he had had something to do with it. It was the fact that the Council as the head of the Institute did sanction and send to the London County Council certain suggestions with regard to steel-frame buildings, and, rightly or wrongly, the Science Committee by itself practically made those suggestions and they were approved by the Council on behalf of the Institute. They may have been absolutely wrong. At his (Mr. Clarke's) suggestion at the head of the paper there was a note stating that these were to be framed in the manner of by-laws and not as an Act. The County Council had made the Bill more stringent, and introduced a considerable amount of detail, but they had got more or less to the basis of the suggestions sent in by the Institute Council. He was rather surprised when discussing the matter with a man the other day to hear him read extracts from replies from nearly every scientific body in London, objecting to this Bill being made in the form of by-laws; they all, he thought, without exception, advocated enactments, so that he presumed the Council were justified in doing away with their scheme for having by-laws. Mr. Edwin T. Hall, who made the remark as to making by-laws, did not tell them that the by-laws must be sanctioned by the Local Government Board and that before the Local Government Board sanctioned the by-laws it had to consult not only the scientific bodies but also all the municipal authorities in London. That was

one of the difficulties about making by-laws. One point he would like to try to make from the very beginning. He supposed it was their fault that there was no definition of what a steel-frame building is. His contention was that if they had a good definition of a steel-frame building the matter would be perfectly simple and these enactments if passed would be taken to only apply to steel-frame buildings. He had had a very lengthy conversation with some of the gentlemen who put the Bill into its present form, and he imagined that if the Bill was passed in its present shape, the first difficulty to arise would be that they might have steel structures built into walls or old masonry thickness and similar structures supporting the internal portions of the building. There was nothing as far as he could make out, which would prevent that being a steel-frame building, although it was surrounded with walls of the Building Act thickness. That seemed to be a very serious point.

Mr. W. H. ARMS BERRY, F.R.S., said it was always a pleasure to hear the words of criticism and wisdom which fell from the good friend, Mr. Woodward, and he was sure it must be a great satisfaction to the members of the Institute to know that there was such a vigilant and watchful eye always scrutinising the domes and misdomes of all who were in their several capacities doing their best to serve the interests of the Institute. Mr. Woodward had flicked his whip pretty unmercifully over everybody, including the Practice Standing Committee, of which he (Mr. Arms Berry) had the honour to be Chairman, and he seemed to have a complaint about the method adopted in drafting the Report of that Committee. Mr. Woodward had told them that he had recently joined the Committee, and he could assure him and, in present that he was cordially welcome in the Committee, but when he had been a little longer there he would be better informed as to the methods and the reasons by which they conducted their affairs. Had he been in his place on the day when the motion for the drafting of the Report in question was passed he would have known that the question was considered by the Committee, and it was unanimously agreed that the Chairman, with the two Hon. Secretaries, should be entrusted with the drafting of the Report. He quite agreed with Mr. Woodward that it was not altogether a satisfactory proceeding, but he had held that view himself and had expressed it in the Committee for some years, but owing to circumstances over which they had no control it became practically impossible, after he gave notice to send in their Annual Report, to call the Committee together to consider it; it had been the custom then to ask the Chairman with the Secretaries to draft it. They had done that solely on the responsibility of their Committee.

The Chairman said they had had a most useful and interesting discussion and it only remained for him to answer as best he could those questions which had not already been answered. The financial questions he would not attempt to answer, but would ask the Secretary, who had all the figures at his fingers' ends, to make the necessary explanations. Mr. Woodward was always genial in his remarks, and, more than that, he was always very much to the point. The only pity was that they had not got him on the Council to help them in drawing up these reports and so save some of his criticisms—in a double way—because he would then help them to put in their commissions, and would not then deal with their commissions, because he would be in the swim. Mr. Woodward was perfectly correct, the Council would be very glad to rest. They all wanted rest, but could not get it. Members elected them year after year, and yet took them to task for not retiring. One of their duties was to prepare the House List. Mr. Woodward blamed them for putting themselves in the House List, but he did not know that they were very much to blame for that; they did the best they could, and prepared the List which they thought suitable. The question of stores and furnishing firms doing architectural work was a very difficult one, but

he could assure them it had not been forgotten by the Council. They had had it under consideration, but it had not been an easy problem to tackle. He was glad to say that Mr. Woodward had been nominated to serve on the Council next year and he no doubt would be able to suggest some way of treating the subject. He should like to say that they all most heartily agreed with Mr. Hubbard's remarks on the retirement of Mr. Graham. The Council had already written Mr. Graham a letter as from the Council, and if he heard also that it was the wish of the present meeting to acknowledge his services he was sure it would be very gratifying to him. Mr. Woodward, he thought, was a little unfair in saying that there was no report of a lot of these Committees. The report of most of these Committees was in the work that had been done, and this was sufficiently shown by the Report. They would have presently to go very carefully into all the work the Charter and By-laws Committee had done and he could assure them it had not been a very light task. As regards the vote for £40 for the British School at Athens which appeared in the balance-sheet but not under Grants, that was accounted for by the fact that it was voted last year and appeared in last year's report, which he supposed Mr. Woodward had not noticed.—Mr. Naylor called attention to a slip which he was afraid they had made. Apparently some members of the Art Committee visited the church without his knowledge, but he was sure Mr. Naylor would accept the statement that it was without any intention of trading on his toes the proper course would have been to communicate with him, but he supposed it was overlooked. He was sure Mr. Naylor would accept his apology.—As to the Wellington Memorial, he believed Mr. Macartney had nothing to do with that particular work: it was entirely in the hands of a Committee with which Mr. Macartney had nothing to do. The public action which was hinted at here took the shape of a letter to *The Times*. He did not know what else they could do. Attention had been called to the fact that the Chairman of Standing Committees should be *ex-officio* members of the Council. That, of course, was a matter within the Committee's own hands: they had only to elect as Chairmen members who happened to be on the Council.—As to the £25 to the *A.A. Sketchbook*, that grant was made because a great deal of the best of the work, which was exhibited in the Alpine Club Galleries, was published in the *A.A. Sketchbook*, and the Council thought it a good thing to subsidise the A. A. instead of attempting to do it themselves.

Mr. Woodward: Before the Secretary rises might I just say a word—in collecting one little act of forgetfulness. I said last year with regard to the Secretary that the proof of the pudding was in the eating: the pudding is not quite completely eaten, but I think I shall have the assent of everyone when I say that to my mind the ingredients are perfectly satisfactory, and no doubt in the course of a very few years we shall have the completed pudding, which will be very satisfactory.

THE CHAIRMAN: I am glad you have said that, Mr. Woodward, because I think we all feel that we have an excellent Secretary. The permanent staff was mentioned as a whole, and I presume Mr. MacAlister will not object to being included in the permanent staff: but a word from Mr. Woodward is always gratifying, and I have no doubt Mr. MacAlister will be gratified by your remarks, which I have great pleasure in endorsing.

THE SECRETARY: I noted down a few points from Mr. Woodward's speech. First, with regard to the cost of electric lighting, there is a very considerable increase this year. That was due to a rather curious incident: the electric light company discovered that our meter for some six months had been suffering from that supineness that Mr. Woodward depicts, and had been only registering 50 per cent. of the power consumed, so that this year we had to pay half the last year's electric light bill. That accounts for the

sudden increase. The £182 for the Hulot Drawings is the sum expended on that very interesting exhibition that was held in Pall Mall of the Prix de Rome drawings. It cost a great deal to bring them over from France, to insure them and send them back, and for the hire of the rooms and other expenses. The apparent discrepancy between the items in the Report and in the Financial Statement is simply due to the fact that the Financial Statement refers to the finances from the 1st January to the 31st December, whereas the Report deals with the year from May to May; it does not deal with the same year, and if you will examine the two statements from that point of view you will find the discrepancies disappear. As to the Portrait Fund, that £76 is a deficit in the subscriptions for the presentation portrait, which is made up by the Council. As to the Trust Funds £50: some of the trust funds allocated for the upkeep of the Prizes and Student-ships failed to produce the necessary amount, and where there is a deficit the Council has devoted the necessary sum to bring them up to the actual value of prizes and student-ships.

The motion for the adoption of the Report was then put and carried unanimously. The further proceedings of the Meeting are sufficiently indicated in the Minutes.

MINUTES XIII.

At the Seventy-fifth Annual General Meeting (being the Thirteenth General Meeting of the Session 1908-09, held Monday, 3rd May 1909, at 8 p.m.—Present: Mr. Leonard Stokes, *Vice-President*, in the Chair: 31 Fellows (including 9 members of the Council), and 20 Associates—the Minutes of the Meeting held Monday, 19th April [p. 447], were taken as read and signed as correct.

The decease was announced of Edward Potts, *Fellow*, elected 1888.

The Chairman having formally presented and moved the adoption of the Annual Report for the official year 1908-09, the motion was seconded by Mr. John Slater [F].

Mr. Wm. Woodward [F] having reviewed the Report at length, the criticisms and questions raised by him and other speakers were replied to by Mr. Edwin T. Hall, *Vice-President*, Mr. W. H. Arkin Berry [F], the Chairman, and the Secretary.

Mr. George Hubbard, F.S.A. [F], having referred to the paragraph in the Report announcing Mr. Alexander Graham's resignation of the Hon. Secretaryship, the Meeting signified its approval of his proposition that a letter should be addressed to Mr. Graham expressing members' appreciation of the distinguished services he had rendered the Institute during the ten years he had filled the office.

The motion for the adoption of the Report was then put from the Chair and the Meeting unanimously

Resolved, That the Annual Report of the Council for the official year 1908-09 be adopted.

On the motion of the Chairman, a vote of thanks was passed to Messrs. Henry Tanner, jun. [F], and Arthur W. Sheppard [A], for their services as Hon. Auditors, and Messrs. John Hudson [F], and C. E. Hutchinson [A] were nominated Hon. Auditors for the ensuing year.

The Meeting authorised the Council to appoint Secretaries to direct the election of the Council and Standing Committees for the year of office 1909-10, and to report the result to the Business General Meeting of the 7th June.

On the motion of the Chairman, a vote of thanks was passed to the Statutory Board of Examiners for their services during the past year, and the members forming the Board were reappointed to serve for the ensuing year.

The proceedings then closed, and the Meeting separated at 10.20 p.m.

(1) That they are about to destroy a venerable example of eighteenth-century Bath, "part of the scheme for the building of Bath," and having "extraordinary historical associations."

(2) That they are prompted so to do by the desire to obtain increased revenue from their property.

(3) That the Corporation have acted without due publicity in the matter, and with "scandalous haste."

The reply of the Corporation to the foregoing is:—

That the Bath Street houses (with the exception of the corner house facing Stall Street) are not now and never were the property of the Corporation.

That the Grand Pump Room Hotel is in the hands of lessees for a term which will not expire for 33 years, apart from a new agreement now entered into for the extension of the term.

That the enlargement of the hotel is desired by the lessees, who and whose predecessors in title have kept the hotel closed for more than six years.

That the Corporation give their assistance to the scheme believing that it is in the interests of the city so to do, the continued non-occupation of the hotel being an injury to the city and a deprivation to all those invalids who require treatment and accommodation without exposure to the open air.

That no pecuniary profit on the transaction is being made by the Corporation, the increased rent being balanced by the postponement of the reversion.

That the business took five years to negotiate; that the agreement was sealed a year ago; and that the utmost publicity has been given to the matter throughout.

In addition the Corporation deny—

That Bath Street is a portion of what is commonly understood as eighteenth-century Bath; or is part of "the scheme for the building of Bath"; or has "extraordinary historical associations."

The statement proceeds to give an account of the origin of Bath Street and of the Grand Pump Room Hotel. Other parts of the statement deal with the publicity of the proceedings, the commercial aspect of the question, the architectural and historical value of Bath Street, the present condition of the street, and the alternatives open to the Corporation. In conclusion the report says—

"The Corporation must accept the difficulty of the position, and they elect to take a course which values more highly the present life and modern interests of the city than a sentiment which in their opinion has been unduly developed. And while doing so they place upon record their conviction that the alterations proposed will not substantially impair the architectural features and reputation of this city, which are based upon more substantial, more permanent, and more important work than Bath Street represents."

Appended to the statement is the following report by Mr. Bligh Bond [F. as to the structural condition of the houses on the north side of Bath Street.

16 Brock Street, Bath; 26th April 1909.

I have made a careful examination of the houses on the north side of Bath Street.

I find that these were originally built in a most unsubstantial manner, and their construction is radically unsound. The whole front over the colonnade is a mere shell of the flimsiest nature, consisting of ashlar work

barely 6 inches thick, made out internally with lath and plaster on light studding to appear as a 21 inch wall—the vacancy being 14 inches. These walls run about 26 feet wide in the clear to each house, and their height is about equal to the width, but they appear to have no internal ties except the very light party walls which are carried out over the covered walks, and which I believe are but 6 inches thick. Each section of front contains six windows, one of which (first floor centre) has a heavy pediment. These front walls rest upon a wooden bressummer laid along the columns, and this is beginning to show signs of crashing. Some of the party walls show marks of subsidence.

The ashlar fronts are all bulging outwards, as might be expected, and three at least of them are held up by iron bands and rivets.

The columns supporting the fronts are of freestone, their sectional area at the necking being about one square foot. In length they vary from 10 feet to 13 feet. The intercolumniation is 9 feet to Bath Street, and 10 feet to the crescent ends. Notwithstanding the lightness of the walling above, it is manifestly too heavy for these columns. The weight of the superincumbent masonry alone appears to reach the maximum that the limit of safety would allow; and when the weight of roofing and of a section of flooring are added the conditions appear distinctly perilous.

The joists of the first floor run outwards, and appear to share in the support of the front wall and bressummer, as they rest (cantilever fashion) on the inner wall of the colonnade; but this wall has, at least for a part of its length, no foundation, being built in the air, so to speak, along the crown of a cylindrical vault which lies below. A more hazardous method of building it would be difficult to conceive. The western angle of this wall has recently developed a settlement of a serious nature, which is still opening.

Internally, the premises are not only, for the most part, in grievous disrepair, but are showing signs of subsidence in all directions. They hardly appear of a nature to repay renovation, if such a process were feasible, since with a few exceptions the interior finish is commonplace.

FREDK. BLIGH BOND.

In a communication on the subject to the Institute JOURNAL Mr. Bligh Bond says:—

"On the general question of the value of eighteenth-century architecture I am entirely in agreement with Mr. Blomfield when he says that this consists, not in the detail, but in the symmetry of plan and unity of character which make it so eminently expressive of order and so dignified in appearance.

"The point of importance for ourselves is therefore this: when, as sometimes happens, it becomes necessary to remove good work of that period, everything depends upon what we put in its place.

"In the present case the opponents of the City Council's scheme appear to have somewhat hastily concluded that the design which is destined to replace the existing façade on the north side of Bath Street is likely to be an unworthy successor of the old work—something hastily conceived and 'rushed through.' It is conceded that the new work is to be a commercial venture, submitted by Messrs. Warings on their own initiative, and endorsed by the Council. But to do the Council justice, it

must be said that this transaction was carried through with deliberation and in full daylight. Public criticism was invited. The designs were on view in 1907, and were published in the *Bath Chronicle* and the *Bath Herald*. They appear to have the character of an honest attempt to reconcile necessities of plan and arrangement with fidelity to the architectural character of the street; and the intention clearly was to harmonise with the latter in such degree as was possible.

"The Old-Bath Preservation Society appear, in the utterances of some of their advocates, to have drawn conclusions unfavourable to the new scheme, which has a 'business' basis, as compared with the old, which was regarded as a specimen of civic forethought and enlightenment in being a piece of orderly architecture devised for the welfare of the city rather than to promote individual interests. But, as a matter of fact, the records show that Baldwin's scheme was merely a private speculation, and it was taken over by the Corporation from its owners at a later date purely as an investment.

"The Bath Council have no doubt allowed a certain atmosphere of mistrust to be created by some of the building transactions which have been sanctioned during a period not far remote. Irreparable loss to the city has been sustained, for example, by the destruction of Nassau House (that fine old eighteenth-century work) and Winchester House (an Elizabethan mansion of picturesque and interesting character), to make room for that terrible monstrosity, the Empire Hotel. The unspeakable premises, also at the corner of Cheap Street, erected in defiance of the by-laws, are an eyesore to every beholder. But these are sins of a time now past, and the conditions which produced them are never likely to recur, since the Council are now free from the associations which made such performances possible. It is therefore to be regretted that an unnecessary element of antagonism should have been imported into the present controversy, as this can only have the result of weakening the influence of friendly architectural critics.

"The fountain in Stall Street, alluded to in the course of this controversy, is not, as some have supposed, an ancient work, but was the gift of one Pieroni, an Italian sculptor, who resided in Bath during the latter half of the nineteenth century."

"AMERICAN ARCHITECTURE."

Mr. EDWARD W. HUDSON *Ad.* writes:—

Although my remarks on this subject [pp. 408, 419.] were written before Mr. F. S. Swales read his Paper, the announcement of the title once more for a lecture in London was the cause of my offering them, and as they have been noticed by him I should like to reply.

It is interesting to take a retrospect whenever possible in regard to any important art subject about

to be discussed; hence my mention of earlier papers in the R.I.B.A. TRANSACTIONS; and as a sequence I ventured a comparison. Then from much thought on the subject (not merely of recent date) and close examination, I questioned the title as above. Mr. Swales perhaps knows that some of his American contemporaries at this hour are doing the same in no half-hearted way—and this in a country which it is customary to declare has everything as near perfection as possible.

I much regret giving Mr. Swales the trouble of writing a large portion of his reply through a slip of the pen on my part and the impossibility of seeing the proof for detecting the mistake that put 1890 for 1900. That should be the date of the professor's dicta which I quoted from the reporter's notes. Skyscraper design has not as a rule freed itself from the description of its hybrid composition that I italicised. I would mention exceptions, but am writing of averages necessarily, though nowise in a spirit of *ad adulationem*. I acknowledge the face value of much American building. It is often monumental, usually costly, finely appointed, and fitted with the most advanced appliances for comfort as here understood, for saving time (if "rush" does that) and trouble, and for bringing in exorbitant rentals.

If I had a bias, let me confess it. For thirty years I have looked across "the pond" with interest because of the splendid opportunities there offered for architectural development on account of the great riches Nature was providing by the development of the country; and in the work of Richardson I saw, as I believed, the right road being traversed toward a national style evolved from Romanesque forms, but with the archaic sternness cut out while a monumental dignity remained. By his untimely death, and (as opinion here is given) by the failure on the part of his successors to catch the mantle as it fell from his broad shoulders, it died out before its influence had largely stamped itself upon national art, and we are told "it is only in the backwaters of civilisation that it is attempted now." "This is too sweeping an assertion.

I believe it was French influence that stopped the evolution. The fascination of Paris was irresistible. The national restlessness and aspiration led to a *liaison* more enduring than the flirtation of Richardson's day. French ideas brought back stamped themselves upon American buildings, and also imparted a skill in planning greater than our own, and a perfection of draughtsmanship which they do not see "cuts no ice." But now unrest is manifesting itself about this *liaison*, and one party is inclined to draw away from it, and yet keep up a correspondence of which friendship is to form a part. We should wish this semi-independent idea all success, but it is somewhat premature to suggest that students will flock from Europe for the benefit (problematical) of a

course of tuition in American Universities or ateliers on the strength of an article in a Boston magazine, if that is what Mr. Ad-Head means by his remarks to the Leeds and Yorkshire Society."

If by "scholarly work" we are to understand a classic exactitude in almost every detail, it surely exists in the work of a few leading men; but when it appears upon slightly modified classic temples reproduced, it must be denied that the result "expresses the uses" of the modern building. A Corinthian range of columns and entablature attached to a thin wall which is only a screen to keep out the weather and has nothing to do with the actual construction, is a pretence. Concealed steel framing carries the weight, the cornice of the entablature is hung on by "anchors," and if the building be lofty the upper cornice is metal plate also hung on in the same way. The costly marble, bronze, fine detail and sculpture do not make it architecture in the usual sense, and if it be "American," it can hardly be "American architecture." *C'est magnifique, mais—*

Mr. Swales says I have selected work that is "well below the average." I must differ from him still, and believe that he himself showed the Institute what he thought the *best*. To take a parallel simile. Suppose Mr. Swales were asked to lecture on English Costume, would he confine himself to levée, opera, and ball dress, or include that of the bulk of the people? I have seen many buildings and designs, both the most ambitious and the smaller and less known productions, and have not spared the recognition of a humble and I hope sincere critic's admiration in my remarks of qualities I noted. Truth, and facts as they appear to anyone who ventures to speak on any subject, should be kept in view, or silence maintained.

Mr. Swales says I overrate the engineer's part in designing buildings. I did not mean that he had control of the lay-out, or the style, or the appointment, or the details (architectural) of the building. He, however, locates position and strength of columns and beams, which do all the work, to fit in with the scheme, lays out plumbing and heating and electrical work, of course conformably to the client's purpose as explained to the architect. In rare cases have I found the engineer an employé under him; in most cases he is in independent practice. In very large jobs, the architect's engineer expert, the steel contractor's engineer, and the client's engineer on the work all co-operate in solving exigencies of construction.

Mr. Swales says that "*projets*" are thoroughly worked out in offices. No doubt they would generally be so if "rush work" were not demanded by clients. On the other hand we hear that "if one architect cannot get out a scheme in a few days a prospective client will go to another who will." One story a week in a commercial building's erection

is what he looks for. A huge building is put up and offices occupied in twelve months. If waiting for stone for the lower story skin, you can start at any floor level and enclose with brick and get ready for the tenants, owing to steel beams that carry the wall and floor. The truth as to "the idleness of hurry," as Whiteing calls it, lies midway between these extreme statements to-day.

I did not apparently make myself clear about the "bits from Europe" which Mr. Swales thinks have been useless to stem the tide or hinder the development of American architecture. It is not foreigners who bring the "bits," but the photographs and books of Europe which display them handily for "rush" work. Mr. Borglum says it is American architects who are responsible. He writes:—

"Lacking in reverence, sincerity, and individuality, the monuments we have built are not our own: because we have 'cribbed' every scroll and form we build: because our architects annually 'beat it' to Europe to gather ideas to restock their idea-less plants at home: because our finery is of the Old World—our counting-houses are fashioned after the old temples, and we hawk our wares from the windows of buildings redrawn after the old palaces. Our builders are our engineers. Over the great steel limbs he (the architect) draws a drabbed chemise in pseudo-Greek, Italian, or Beaux-Arts pattern; it would never do to put a vital piece of sculpture upon one of his fretted fronts."

Mr. J. Stewart Barney, speaking at the Architectural League three weeks ago, rated the Beaux-Arts men for slavish imitation of French ideas. His title for their craft was "Rug Weavers," "French malaria" their complaint, and their existence a "national calamity." As this, and much more giving details was a post-prandial speech (by invitation), I might not have referred to it, had it not sufficed as a peg on which the *New York Sunday Times* has hung a page and a half of interviews in which it was restated and amplified, followed by the varied opinions of two leading architects. The article is headed, "Is there an American Architecture?"

A few sentences will give an idea of Mr. Barney's views.

"It is not truthful or logical to make beautiful palaces of department stores, and noble temples of places of money exchange."

"Nor to build a great Roman colonnade, as an entrance to a portico, 200 feet long and a few feet wide, where the thousands who could enter between the columns would have to fight and jostle to get to the entrance; nor logical to plaster this same Roman colonnade against the wall of an office building which is honeycombed with windows lighting offices of the most rentable size."

"I do not think a great row of Corinthian columns about 70 feet high is the truthful ex-

* JOURNAL R.I.B.A. Vol. XVI. p. 307.

* *The Craftsman*, vol. xv. No. 1.

pression of a four-story building. . . . My opponents say 'this is the way to make the building monumental, and a public building may be untruthful and illogical, but it must have a monumental effect, which can be produced only by the exaggeration of classic forms.' . . . We shall come out of the chaos; some of us are thinking very hard at least. The 'importing firms' do not consider that necessary as yet, and as long as there remains one building in Europe which has not been transplanted to our shores and misused in every possible way, they probably will not think, but will continue to gather inspiration in the fields of ancient art."

Mr. Barney believes that an American style will come to pass, that there are some very truthful expressions in some of the high office buildings. He thinks "we no longer disguise the fact that the corners are made of iron, and that the masonry is placed around for the purpose of protecting the iron."

Mr. Whitney Warren's opinion was next sought. He thinks "American architecture is progressing, and that evolution cannot be hurried; that in past ages through similar attempts to grapple with the requirements of the time a distinct style was finally evolved, and that such cannot be invented. Mr. Barney is in too great a hurry. Everything in architecture must have a reason for its being, otherwise the mind is not satisfied."

I suppose most thinkers will agree with the last proposition, but how seldom is it acted upon in practice.

The third subject of the inquisitor was Mr. F. H. Kimball, who disagrees with Mr. Barney, and says: "It is impossible to originate a style, we have got to use what has come down to us, adapting it as we go along to whatever circumstances and conditions may make changes necessary here and there. There is no American architecture at all, and I do not see how there can be; but there can be originality in treatment."

I retain the idea, possibly old-fashioned, that architecture is like coinage, in that its first necessity is to be genuine, whether the image upon it is beautiful or simple. It must have the true ring of the "easterling." It must not pretend to be what it is not.

I see the Capitol at Washington given as one of the most prominent buildings representing American architecture. But is its cast-iron dome the right thing from an architectural point of view, or not?

The General Post Office and the whole façade of the Grand Central Railway Terminus, New York City, are also cast-iron faced. Are these also satisfactory? They are not the latest thing in construction, I know. Does the visitor in a flying visit who appreciates the designs know this? The general effect of the Orders employed, though merely stuck against the wall, may or may not be approved. Take a great church, or Gothic hall.

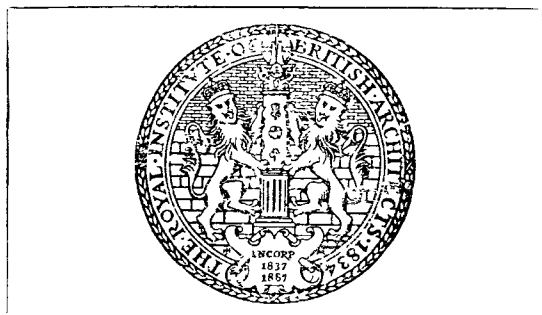
The tourist will see, *e.g.*, a fine clustered column looking like stone. Does he know that "imitation Caen stone" (hard plaster) is a material in general use; that the column is hollow, enclosing a steel stanchion, steam- water- and soil- pipes, electric wires, and what not; and that the enclosing material is terra-cotta blocks bracketed out for the colonnettes? Does he know that the Gothic arch above is cradled out on wire lath to conceal the steel beam which carries the roof; that the wide-span hammer-beam roof, which may be like the timber one over the London Guildhall, is a steel framework covered with stamped sheet-iron painted like oak; that the doors and cabinet work in the fine offices of the banker in the City, which he, even if an architect, takes to be finest Spanish mahogany, are wood core "Kalameined"—*i.e.* metal-plate covered, and grained with a splendid imitation of the real thing indelibly burnt on. He has to go close to the object before conviction. I have named these few instances of excellent effects produced by mere shams, and they are largely used by the most eminent men. I admit the difficulty of showing the true construction in very much of large modern work, and I think, if it were not for the "rush" which is made a *sine-qui-non*, something different and more true might often be devised. Of course, solid building is not altogether unknown, but it is rarely compatible with a return that satisfies the client financially.

I agree entirely as to the large share "the designer" has in the production of a façade and interior effect; but he is unable to be truthful. I expect Mr. Swales has not seen the most costly private residence in Fifth Avenue, if he has not seen any building in New York which indicates the Louvre for origin of *motif*.

Though I do not agree with all that Mr. Sturgis said at the A. A. two years ago, either about English or American work, his opinion on work in his own country is worthy of consideration, *viz.*—"The best architectural work in America is not new, is not American, but is conservative."

Sketches in Norfolk.

In the present number of the JOURNAL are given some Sketches by Mr. C. H. Wontner Smith [*A.*], made during the Architectural Association excursion to the Norfolk district in 1907. The country visited is particularly rich in architectural features. The churches are generally very fine, the distinctive characteristics being the fifteenth-century flint panel-work and lofty, well-proportioned towers. The porch of Aylsham Church (Pl. III.) is a good example of the former. The domestic work is perhaps more varied in style, the most interesting period being the early brick and terra-cotta, as at East Barsham (Pl. VI.) and Oxborough Hall (Pl. VII.).



9 CONDUIT STREET, LONDON, W., 8th May 1909.

CHRONICLE.

The Royal Gold Medal: Presentation postponed.

Dr. Arthur Evans (*Royal Gold Medallist elect*) intimates that his work will detain him in Crete until rather late in July, and that it would be impossible for him to be in London at the time fixed for the presentation—viz. Monday the 21st June. The Council have consequently resolved to abandon the General Meeting arranged for that evening, and propose that the presentation shall take place at the Opening Meeting of next Session, which will be the first Monday in November. The President is inviting members to an "At Home" at the Institute on the 21st June, and is arranging for the occasion an exhibition of water-colour drawings by architects.

THE ANNUAL ELECTIONS.

New Nominations.

The following name should have appeared in the "House List" (issued 17th April) among names of candidates nominated to serve on the Council as Representatives of Allied Societies: viz. :—

THOMAS EDGAR ECCLES [*F.*] (*Liverpool Architectural Society*).

The following nominations have been made by members in accordance with By-law 30:—

As Vice-Presidents:

ALFRED WM. STEPHENS CROSS, M.A.Cantab. [*F.*].
Nominated by A. R. Jemmett [*F.*], Percy B. Tubbs [*F.*], James Fasnacht [*F.*], Albert W. Moore [*F.*], Arnold S. Tayler [*A.*], Samuel A. S. Yeo [*A.*], Walter M. Epps [*A.*]

SAMUEL PERKINS PICK [*F.*], *Vice-President 1905-6*.
Nominated by Percy B. Tubbs [*F.*], A. R. Jemmett [*F.*], Frederic R. Farrow [*F.*], A. W. S. Cross [*F.*], J. S. Gibson [*F.*], Arnold S. Tayler [*A.*], Samuel A. S. Yeo [*A.*].

As Members of Council:

HIPPOLYTE JEAN BLANC, R.S.A., F.S.A.Scot. [*F.*].
Nominated by John Wat-son [*F.*], Paul Waterhouse [*A.*], Wm. Flockhart [*F.*], E. Guy Dawber [*F.*], Edwin L. Lutyens [*F.*], Walter Cave [*F.*], And. N. Pientice [*F.*], J. A. Gotch [*F.*], David Robertson [*F.*].

ARTHUR WILLIAM BREWILL [*F.*].
Nominated by A. W. S. Cross [*F.*], C. E. Mallows [*F.*], A. R. Jemmett [*F.*], W. G. Wilson [*F.*], A. W. Moore [*F.*], George Hubbard [*F.*], Arnold S. Tayler [*A.*], K. Gammell [*A.*].

MAX CLARKE [*F.*].

Nominated by Alfred W. S. Cross [*F.*], Percy B. Tubbs [*F.*], A. R. Jemmett [*F.*], Frederic R. Farrow [*F.*], James Fasnacht [*F.*], J. S. Gibson [*F.*], Arnold S. Tayler [*A.*].

T. EDWIN COOPER [*F.*].

Nominated by S. B. Russell [*F.*], John Bilson [*F.*], F. T. W. Gold-mith [*F.*], E. Goldie [*F.*], Henry A. Crouch [*A.*], Sidney K. Green-lade [*A.*], Walter Millard [*A.*].

CHARLES FITZROY DOLL [*F.*].

Nominated by Horace Cheston [*F.*], George Hubbard [*F.*], H. Percy Monckton [*F.*], Ernest Flint [*F.*], John B. Chubb [*F.*], Rowland Plumbe [*F.*], Lacy W. Ridge [*F.*], John Clarkson [*F.*], Geo. H. Fellowes Prynne [*F.*], Lewis Solomon [*F.*], Geo. Edwards [*F.*], H. D. Searles-Wood [*F.*], J. E. K. Cutts [*F.*], J. W. Stanley Burmester [*F.*], Max Clarke [*F.*], Matt. Garbutt [*F.*], Thomas W. Cutler [*F.*], Theodore Fyfe [*F.*], Frank Baggallay [*F.*], Oswald C. Wylson [*F.*], Eustace Balfour [*F.*], S. Keynes Purchase [*F.*], R. Phené Spiers [*F.*].

H. P. BURKE DOWNING [*F.*].

Nominated by Alexander Graham [*F.*], Alfred W. S. Cross [*F.*], C. E. Mallows [*F.*], Wilham Flockhart [*F.*], Walter Millard [*A.*], Walter Tapper [*A.*], Sidney K. Greenslade [*A.*].

FREDERIC RICHARD FARROW [*F.*].

Nominated by Richard Willock [*F.*], Percy B. Tubbs [*F.*], A. R. Jemmett [*F.*], Alfred W. S. Cross [*F.*], Edwim Gunn [*A.*], Samuel A. S. Yeo [*A.*], C. E. Hutchin-on [*A.*].

ARTHUR RUTHERFORD JEMMETT [*F.*].

Nominated by Alfred W. S. Cross [*F.*], Percy B. Tubbs [*F.*], Frederic R. Farrow [*F.*], James Fasnacht [*F.*], James S. Gibson [*F.*], Samuel A. S. Yeo [*A.*], Arnold S. Tayler [*A.*].

A. MARSHALL MACKENZIE, LL.D., A.R.S.A. [*F.*].

Nominated by T. Edwin Cooper [*F.*], Herbert Wigglesworth [*F.*], H. P. Burke Downing [*F.*], W. G. Wilson [*A.*], S. B. Russell [*F.*], S. D. Adshad [*F.*], David Barclay Niven [*F.*], W. Henry White [*F.*], A. Bunnell Burnell [*F.*], Archd. Dickie [*A.*], Walter Tapper [*A.*], J. Anderson [*A.*], Arthur Wm. Kenyon [*A.*].

CHARLES EDWARD MALLOWS [*F.*].

Nominated by A. R. Jemmett [*F.*], R. Stephen Ayling [*F.*], W. G. Wilson [*F.*], Percy B. Tubbs [*F.*], Alfred W. S. Cross [*F.*], Fredk. Chatterton [*A.*], Arnold S. Tayler [*A.*], John Anderson [*A.*].

GEORGE ERNEST NIELD [*F.*].

Nominated by H. Dighton Pearson [*F.*], Alfred W. S. Cross [*F.*], George Hubbard [*F.*], W. H. Woodroffe [*F.*], H. V. Lanchester [*F.*], Horace J. Helsdon [*F.*], Edward V. New [*A.*].

PAUL OGDEN [*F.*].

Nominated by Alfred W. S. Cross [*F.*], George Hubbard [*F.*], Albert W. Moore [*F.*], A. R. Jemmett [*F.*], R. Stephen Ayling [*F.*], John Anderson [*A.*], Arnold S. Tayler [*A.*], Frederick Chatterton [*A.*].

SYDNEY PERKS, F.S.A. [*F.*].

Nominated by Alexander Graham [*F.*], John Slater [*F.*], Ernest Flint [*F.*], Sir Henry Tanner [*F.*], Max Clarke [*F.*], Matt. Garbutt [*F.*], Wm. H. Atkin Berry [*F.*], Alfred W. S. Cross [*F.*], H. V. Lanchester [*F.*], E. A. Rickards [*F.*].

CHARLES HENRY BOURNE QUENNELL [*F.*].

Nominated by Richard Willock [*F.*], Percy B. Tubbs [*F.*], A. R. Jemmett [*F.*], A. W. S. Cross [*F.*], Edwin Gunn [*A.*], Samuel A. S. Yeo [*A.*], C. E. Hutchinson [*A.*].

EDWARD ROBERT ROBSON, F.S.A. [*F.*].

Nominated by Richard Willock [*F.*], Percy B. Tubbs [*F.*], A. R. Jemmett [*F.*], A. W. S. Cross [*F.*], Edwin Gunn [*A.*], Samuel A. S. Yeo [*A.*], C. E. Hutchinson [*A.*].

ALFRED SAXON SNELL [F].

Nominated by Edwin F. Holt [F], Ernest Platt [F],
Wm. H. Atkin Berry [F], Thos. W. Aldwinckle [F],
Thomas Battenberg [F], Brook Kitchin [F], H. D.
Searles-Wood [F].

LEWIS SOLOMON [F].

Nominated by James S. Gibson [F], Alfred W. S.
Cross [F], Percy B. Tubbs [F], A. R. Jemmett [F],
Frederic R. Farrow [F], James Fasnacht [F], Arnold
S. Tayler [A].

PERCY BURNELL TUBBS [F].

Nominated by Alfred W. S. Cross [F], A. R. Jemmett
[F], Frederic R. Farrow [F], James Fasnacht [F],
Arnold S. Tayler [A], Samuel A. S. Yeo [A], Walter
M. Epps [A].

WILLIAM GILMOUR WILSON [F].

Nominated by Alfred W. S. Cross [F], Percy B. Tubbs
[F], A. R. Jemmett [F], Frederic R. Farrow [F],
James Fasnacht [F], James S. Gibson [F], Arnold S.
Tayler [A].

WILLIAM WOODWARD [F].

Nominated by Howard Chatterfield Clarke [F], Richard
M. Roe [F], H. Alex. Polly [F], Edward B. Tanson
[F], A. Sykes [F], H. J. Walling [F], R. H. Kerr [F],
S. Keynes Purchase [F], G. Richards-Judian [A].

*As Associate-Members of Council:***KENSINGTON GAMMELL [A].**

Nominated by A. R. Jemmett [F], R. Stephen Ayling
[F], Percy B. Tubbs [F], W. G. Wilson [F], Alfred
W. S. Cross [F], Arnold S. Tayler [A], John Anderson
[A], Frederick Chatterton [A].

ALAN EDWARD MUNBY, M.A. Cantab. [A].

Nominated by A. W. S. Cross [F], C. E. Malloes [F],
A. R. Jemmett [F], W. G. Wilson [F], A. W. Moore
[F], George Hubbard [F], K. Gammell [A], Arnold S.
Tayler [A].

HERBERT WINKLER WILLS [A].

Nominated by H. V. Lancaster [F], E. A. Rockards
[F], S. D. Adshold [F], Herbert Wiles-worth [F], S.
B. Russell [F], Edwin Cooper [F], H. S. Earl [A].

ARTHUR NEEDHAM WILSON [A].

Nominated by Richard Willock [F], Percy B. Tubbs [F],
A. R. Jemmett [F], A. W. S. Cross [F], Edwin Gann
[A], Samuel A. S. Yeo [A], C. E. Hutchinson [A].

*As Assoc. Member Literature Standing Committee:***HARRY INGO TRIGGS [A].**

Nominated by Edwin L. Turyens [F], Walter Cave
[F], J. A. Gotch [F], Hippolyte J. Blanc [F], John
Slater [F], E. Guy Dawber [F], Wm. Flockhart [F].

*As Members of the Practice Standing Committee:***KENSINGTON GAMMELL [A].**

Nominated by A. R. Jemmett [F], W. G. Wilson [F],
Percy B. Tubbs [F], R. Stephen Ayling [F], Alfred
W. S. Cross [F], Frederick Chatterton [A], Arnold
S. Tayler [A], John Anderson [A].

ALBERT WALTER MOORE [F].

Nominated by A. W. S. Cross [F], A. R. Jemmett [F],
W. G. Wilson [F], George Hubbard [F], W. Stewart
[F], Arnold S. Tayler [A], John Anderson [A].

*As Member of the Science Standing Committee:***ERNEST ALEXANDER YOUNG [A].**

Nominated by Mark J. Landell [F], Edward Mansell
[F], T. Taylor Scott [F], A. Saxon Snell [F], A.
Basil Cottam [A], Lawton R. Ford [A], Harold
Griths [A], Alfred W. Townton [A].

L.C.C. Technical Schools and Architectural Training.

The attention of the Council was recently drawn by a member of the Institute to a circular issued by the London County Council respecting the Day Technical School for Boys instituted in connection with their School of Building at Brixton. As will be seen from passages quoted from the document in the Secretary's letter below, indications were given of a scheme which is open to grave objection, and there seemed every reason to believe that it would be subsequently largely extended in the various L.C.C. technical schools. The matter was referred to the Board of Architectural Education, and as a result of their consideration, the following letter was addressed from the Institute to the Clerk of the London County Council:—

9 Co. Sec. Bldg., 165, Mark Lane, 1909.

To the Clerk of the London County Council:—

SIR,—The Council beg to call the attention of the London County Council to the particulars given in connection with the technical instruction at the London County Council Day School at Brixton. From these it would appear that the instruction given is intended for those entering the "Building Trades and Allied Professions." Admission is restricted to "boys between 13 and 15 years of age who have passed the Sixth Standard of an elementary school and its equivalent." After the training in this school and the continuation of work in the evening classes it is hoped that pupils will attain positions of responsibility in the trades and professions."

In the second and third year one section will be "a professional course for architects, builders, and surveyors."

Further, "at the end of the first year the Principal will be in a position to advise the parents of boys attending the school as to the most suitable profession or craft to select for their sons."

The Council venture to ask whether, as would appear from these particulars, their Technical Day School at Brixton is intended for the education of architects, as if so they would suggest that while training given in this school may be most useful for those intended for the building trades it differs materially from that recommended by this Council for the education of architects.

I am, Sir, your obedient servant,

IAN MACALISTER, Secretary.

A reply has been received from the Education Offices of the London County Council as follows:—

London County Council, 27th March 1909.

To the Secretary R.I.B.A.,—

SIR,—Adverting to your letter of the 16th inst., I am directed by the Council to inform you that the Day Technical School of the above-named Institute is not intended for the education of architects. A boy, however, who has passed through this school and exhibits artistic and professional ability will, on

entering an architect's office as pupil, be in a position to profit by the professional training he will receive there to a much greater extent than a boy who passes directly from a secondary school to the same office. The day school is intended to provide a preliminary training sufficient to test the ability of boys who may become builders, builders' clerks, surveyors, or architects, and will provide these boys with such an insight into the practical, scientific, and artistic side of their future work as will not only test their ability, but enable them at once to take an intelligent interest in the work they will undertake on entering the architect's office.

I am, Sir, your obedient servant.

R. BLAIR, *Education Officer.*

In their reply to the above, the Institute Council expressed their satisfaction at learning that the architectural course at the Day Technical School in question is not intended for the education of architects, and suggested that the point should be made clear in future particulars of the school to be issued by the L.C.C. Education Department.

Reinforced Concrete: The Post Office Extension.

The new sorting and public offices of the General Post Office, with frontages on Newgate Street and King Edward Street, are expected to be ready for use at the end of the present year. The site has an area of $2\frac{3}{4}$ acres, and the total floor space will be about 13 acres. By the use of reinforced concrete there has been a great saving of space and a considerable economy in the cost.

The buildings consist of two blocks:—(1) the public office block (210 feet long by 54 feet wide by 80 feet high) and (2) the sorting office block (312 feet long by 212 feet wide by 75 feet high), with a loading yard (201 feet long by 60 feet wide) between. Both blocks have a lower ground and a basement floor, covering the whole site, including the loading yard, under which they are connected. The basement level is about 30 feet below the pavement level, and the surrounding earth is retained in position by an 8 inch reinforced concrete wall, strengthened with vertical buttresses, 8 inches wide by 14 inches deep, on inside of same, the buttresses, spaced at 6 feet centres, being fixed in position at their bottom, middle, and top by horizontal concrete beams, which, in turn, transmit the thrust from earth pressure on to the main floor beams and columns of the building.

The buildings are entirely in ferro-concrete on the Hennebique system (with the exception of the elevations fronting Newgate Street and King Edward Street and the two elevations of the public office block, which are to be in stone) and form one huge monolith from basement to roof. The outer walls of the two blocks vary in thickness from 6 inches to 12 inches, and are carried at each floor level by ferro-concrete beams on stanchions, the latter being spaced 35 feet 6 inches to 40 feet

apart. The floors, $3\frac{1}{2}$ inches thick generally, are supported on secondary beams of 35 feet span, 16 inches deep by 8 inches wide, spaced 5 feet to 6 feet apart, which in turn are supported by main arch beams, 35 feet to 40 feet long, 5 feet deep at haunches and 2 feet 6 inches deep at centre, by 10 inches wide, spaced at 35 feet centres, and rigidly attached to the main columns by means of the reinforcing rods (overlapping into the contiguous beams and passing between the column rods). The whole weight of the buildings is thus distributed over the columns, and from them to the slabs resting on, for the most part, gravel foundation. A bridge connects the second floor of the public office to the sorting office block, and is in one span of 57 feet.

Other special features of construction are two tunnels under King Edward Street, 25 feet below the ground, approximately 50 feet long by 7 feet wide by 10 feet high, the chimney, 130 feet high, and the cantilever beams (projecting 12 feet 6 inches) at first-floor level, carrying the east wall of the sorting office block three stories high.

The work has been carried out under the direction of Sir Henry Tanner, I.S.O., chief architect to the Office of Works, by Messrs. Holloway Brothers (London), Limited.

The Concrete Institute.

The Concrete Institute, which was founded last year, and has recently been granted incorporation, now numbers over 600 members, of whom the larger number are members of the Institution of Civil Engineers, Royal Engineer officers, architects and surveyors holding public appointments or practising in their private capacity. The governing body is a Council of 28 members, among whom are the Earl of Plymouth, C.B., President; Sir Douglas Fox, J.P., Sir Wm. Mather, LL.D., Sir Wm. Preece, K.C.B., Sir Henry Tanner, I.S.O., Vice-Presidents; Mr. Edwin O. Sachs, F.R.S.Ed., Chairman; Mr. E. P. Wells, J.P., Hon. Treasurer, and Mr. A. E. Collins, M.Inst.C.E., Hon. Secretary. The following Standing Committees have been elected to deal with various technical matters:

Science Standing Committee.—Mr. William Dunn, F.R.S., Chairman, and Mr. F. E. Wentworth-Sheilds, M.Inst.C.E., Hon. Secretary.

Parliamentary Standing Committee.—Mr. A. Ross, M.Inst.C.E., Chairman, and Mr. J. Ernest Franck, J.P., Hon. Secretary.

Reinforced Concrete Practice Standing Committee.—The Chairman of the Executive, Chairman *pro tem.*, and Mr. R. W. Vawdrey, B.A., Assoc. M.Inst.C.E., Hon. Secretary.

Tests Standing Committee.—Mr. W. T. Hatch, M.Inst.C.E., Chairman, and Mr. W. G. Kirkaldy, Assoc. M.Inst.C.E., Hon. Secretary.

Mass Concrete Standing Committee.—Mr. C. H. Colson, M.Inst.C.E., Chairman.

The Concrete Institute is taking up a strong position in the matter of the proposed amendments to the London Building Acts, and has petitioned Parlia-

ment on the subject. Two volumes of Transactions have now been issued. Information is to be collated on matters affecting the rusting of steel, expansion and contraction, algebraical notation, the specification of dampness in concrete mixtures, &c.

The annual subscription is to remain at one guinea for new members joining before October next. The offices of the Institute are at 1 Waterloo Place, S.W.

Rebuilding of Southwark Bridge.

The question of the rebuilding of Southwark Bridge has been engaging the attention of the Bridge House Estates Committee of the City of London Corporation for some time past, and their report may be shortly expected recommending that the bridge be reconstructed and widened on the present site. The existing bridge, which was built ninety years ago, is 42 feet wide. Its gradients are so steep that it is difficult for horses to drag heavy loads across, and the consequence is that the bridge, although it connects the City with an important industrial district, is comparatively little used by horse-drawn vehicles. It is understood that the bridge when reconstructed will be 80 feet wide, and care will be taken to render the gradients less difficult for horses. The cost of the scheme will probably be about £1,000,000, and the work will occupy at least two years. An important feature of the rebuilding scheme is the provision that will be made on the bridge for a double line of electric trams, a matter upon which the London County Council have been in communication with the City Corporation.

Working-class Cottages: Exhibition of Designs.

An Exhibition of Cottage Designs, promoted by the Council of the Royal Manchester Institution (Mr. Thomas Worthington [F.], Chairman), will be opened in the Manchester City Art Gallery in June. The promoters desire particularly to illustrate designs of working-men's cottages which have already been erected, and of which reliable particulars as to cost and construction can be given; and they wish to discourage representation by picturesque drawings, and to rely rather on working drawings and photographs to show the designs. It is thought that such an Exhibition will be of practical value, and encourage the provision of better homes and the desire to occupy or possess them, especially in this neighbourhood, which has hitherto been backward in this respect. The Exhibition will be open for about nine weeks, and after a month or so at the City Art Gallery the drawings will be moved firstly to the Queen's Park, and secondly to the Manchester Art Museum in Ancoats Hall, with a view to interesting as large and varied a public as possible. A certain amount of space will be available for models. It is also hoped to illustrate developments in town planning, and an effort will be

made to take certain districts known to the local public—districts which are now being gradually built up without plan or regard to hygienic or artistic considerations—and to show how, by a little thought, they may be laid out on a proper planning scheme. While the promoters have in view the desirability of exhibiting designs for cottages which give definite information as to the sort of cottage which may be reasonably within the reach of the working man in town or country, and which shall not be misleading from mere cleverness of draughtsmanship, they are prepared to receive suggestive designs for laying out groups of cottages, which may be of interest more from the point of view of collective design, or of town planning, than of individual dwellings. Mr. Percy S. Worthington, M.A. [F.], is acting as Hon. Organising Secretary to the Exhibition, and will be glad to receive applications for forms and particulars from those interested in the subject as landlords, architects, builders, or in any other way, in the improvement of cottage building. His address is 46 Brown Street, Manchester.

Mr. James Runciman, President of the Board of Trade, replying to a deputation on the 7th instant, headed by Lord Curzon, with reference to the future treatment of the Indian Collection at the old South Kensington Museum, said that the idea of scattering the collection as at first proposed had been abandoned, and promised to do all in his power to further the main object of the deputation—viz. that India should be represented under one roof as far as possible, that the various scattered collections should be brought together, so that, for the first time in the history of museums in this country, the Indian Collection should be together as a whole.

Mr. Robert Cochrane, LL.D., I.S.O., F.S.A. [F.], Past President of the Institution of Civil Engineers of Ireland, Inspector of Ancient and National Monuments, Ireland, has been unanimously elected President of the Royal Society of Antiquaries of Ireland for the customary term of three years. Sir Thomas Drew, LL.D. [F.] was a former President. Only two architects have been elected to this position during the sixty years of the existence of the Society.

At the recent Grand Festival of Freemasons professional appointments were conferred as Assistant Superintendent of Works on Mr. William Grellier [F.] and Mr. Charles E. Barry [A.], P.A.G. Superintendent of Works on Mr. Henry Lovegrove [A.] (G. Sword Bearer, 1896), and another important office on Mr. W. Newton Dunn [F.].

M. Jean Hulot, Grand Prix de Rome 1901, whose drawings of the restoration of Sélinonte were exhibited in London last year under the auspices of the Institute, has just started an "atelier" at 62 rue Mazarine, Paris.

SKETCHES IN NORFOLK



C. Wootton. Sketch, Aug. 1897.

ATTLEBOROUGH CHURCH, NORFOLK. WEST END

An interesting Decorated building consisting of nave, N. and S. aisles, transept, N. porch to central tower. This latter dates from the 12th century, and is all that remains of the original church. The nave and aisles were completed in 1405, the former having a flat-pitched 15th-century roof. The chancel was demolished at the Reformation and has never been rebuilt. The church contains a very fine screen and rood-loft, now placed at the W. end.

SKETCHES IN NORFOLK



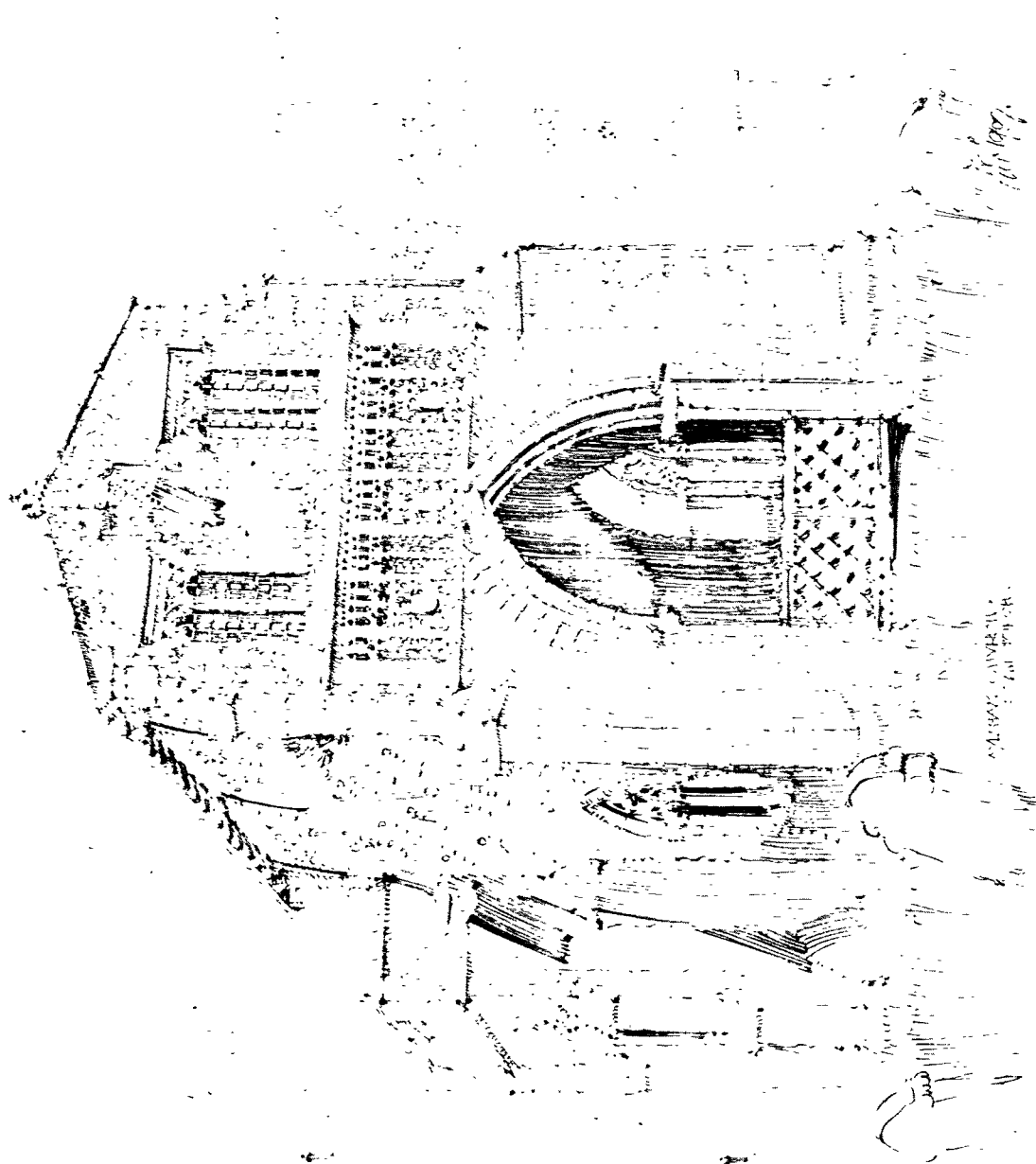
C. Wright, S. A. C. A., 1907.

II.—SALLE CHURCH, NORFOLK—NORTH PORCH.

A fine Perpendicular church not far from Cowston. It has a magnificent nave and chancel, the former not now in use, both with fine timber roofs. The church contains some interesting woodwork, including an old "three-decker" pulpit. Both the north and south porches are fine examples of 15th-century work. The building is in a very dilapidated condition, but like Cowston, has never undergone restoration.

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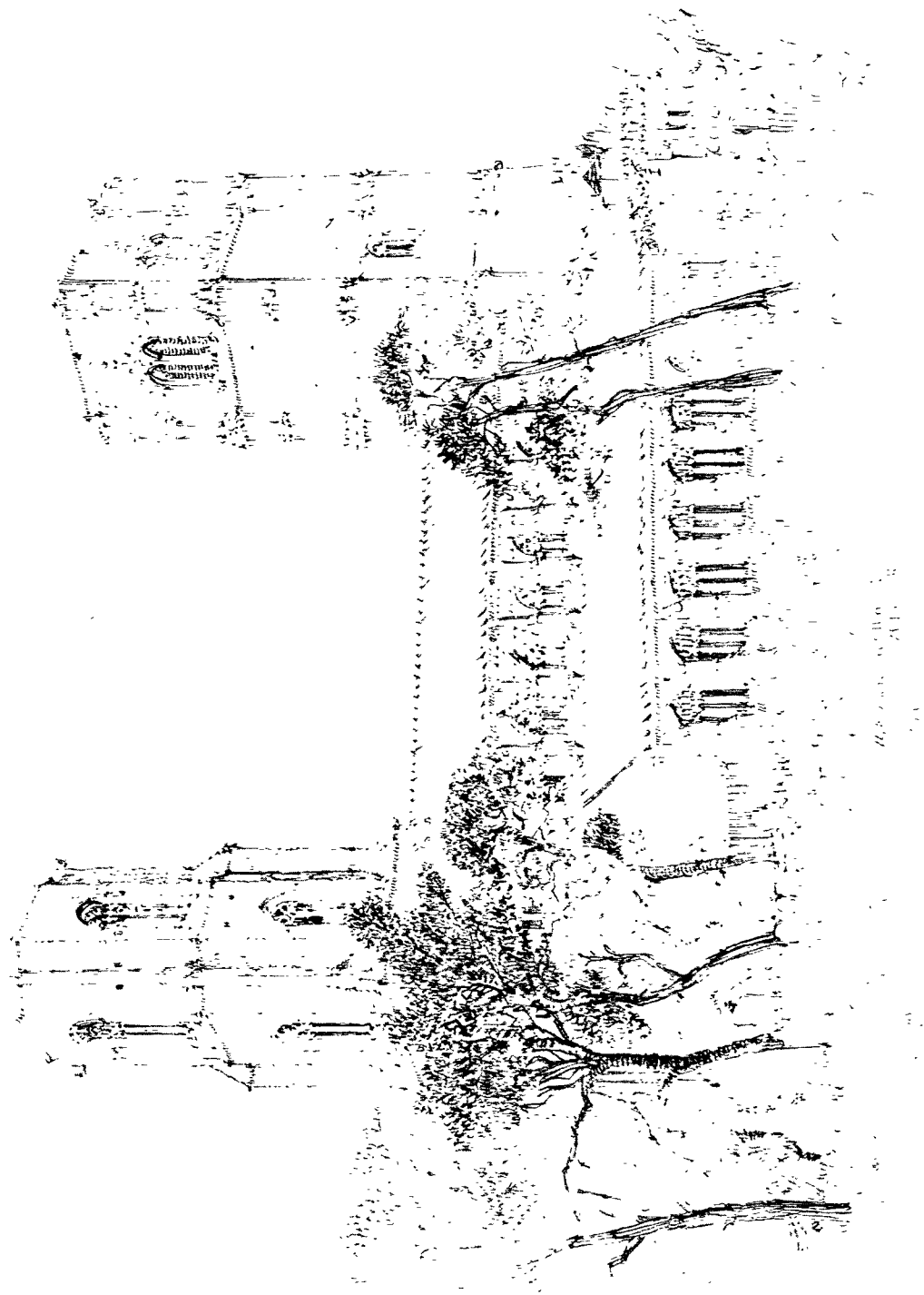
21



C. Boulton Smith, June, 1907

III. AYLSHAM CHURCH, NORFOLK

A fine church with many interesting features. The nave is Early English and the aisles, transept, chancel also with aisles, Perpendicular. A portion of the ancient rood-screen (dated 1567) with painted figure on the panels still remains. The south porch is not unlike that of North Aylsham, but is finer in many respects. Over the entrance in the flint panel work are three shields, the centre one bearing the Royal Arms. The church has been restored.



C. Weather Smith, Aug. 1907.

IV - WYMONDHAM CHURCH, NORFOLK.

This was originally a double church, dedicated to St. Mary and St. Alban, and attached to the Abbey. The present church consists of a nave only, the tower at the east end being the only remaining portion of the other edifice. It has a fine Norman nave and a wide aisle on the north side, dating from the 13th century, and there is a good timber roof. The W. tower, constructed of flint and stone, is a magnificent feature dating from between 1140 and 1170. The buttresses are octagonal.

A black and white photograph of the Basilica of the Holy Spirit in Paris. The image shows the large dome and the tall, ornate spire of the church. In the foreground, a bridge with arches is visible, and the surrounding area appears to be a park or plaza with trees and pathways. The overall scene is captured in a high-contrast, grainy style.

V—SWAFFHAM, NORFOLK

The church in this interesting old market town is reached by a fine avenue of lime trees. It dates from the year 1474, and has been partly restored. The hammer-beam roof of the nave is an especially interesting feature. The tower, completed in 1510, is surmounted by a modern lead fliche.

SKETCHES IN NORFOLK

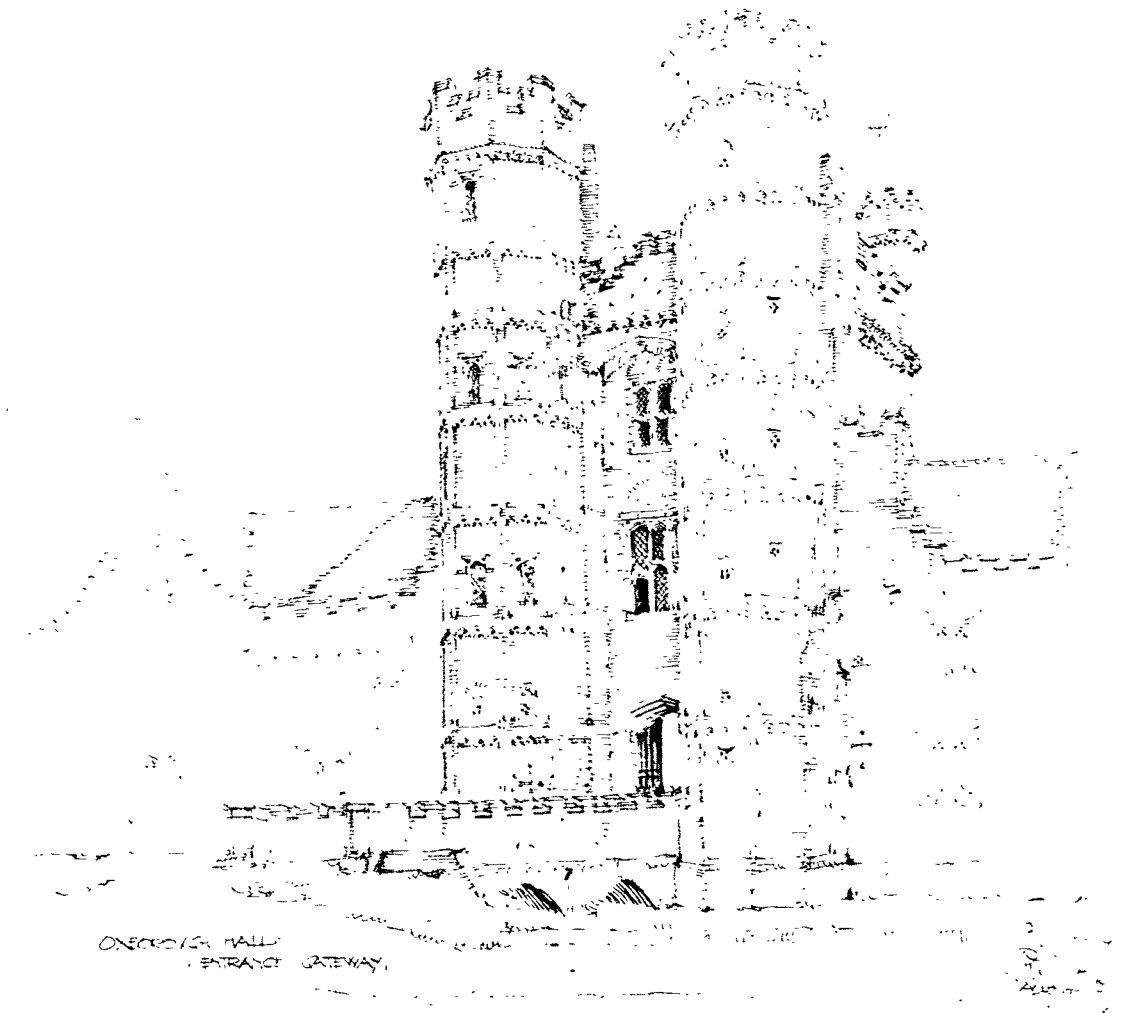


W. B. 1907

VI. -MANOR HOUSE, EAST BARSHAM, NORFOLK.

This building, situated three miles from Fakenham, is an excellent example of early brick and terra-cotta work. It was built in the time of Henry VII., and is now a ruin. The N. side of the quadrangle is all that remains, with the exception of the outer gateway, which bears the arms of Henry VIII. in whose reign the building appears to have been completed.

SKETCHES IN NORFOLK



W. W. Smith, Dec. 1907.

VII.—OXBOROUGH HALL, NORFOLK.

The seat of Sir Edmund Bedingfield. This is a fine example of 15th-century brickwork. The entrance gateway and rooms over are the most interesting portion of the house, which is quadrangular in form. The bridge over the moat, about 50 feet broad, is modern. The principal room over the gateway, called the "King's Room," is hung with tapestry dating from the time of Henry VII., and the chamber also contains some interesting furniture. During the Commonwealth the hall was seized on account of Sir Henry Bedingfield's "treason against the Parliament and people of England." It was sold, but later repurchased by the Bedingfield family.

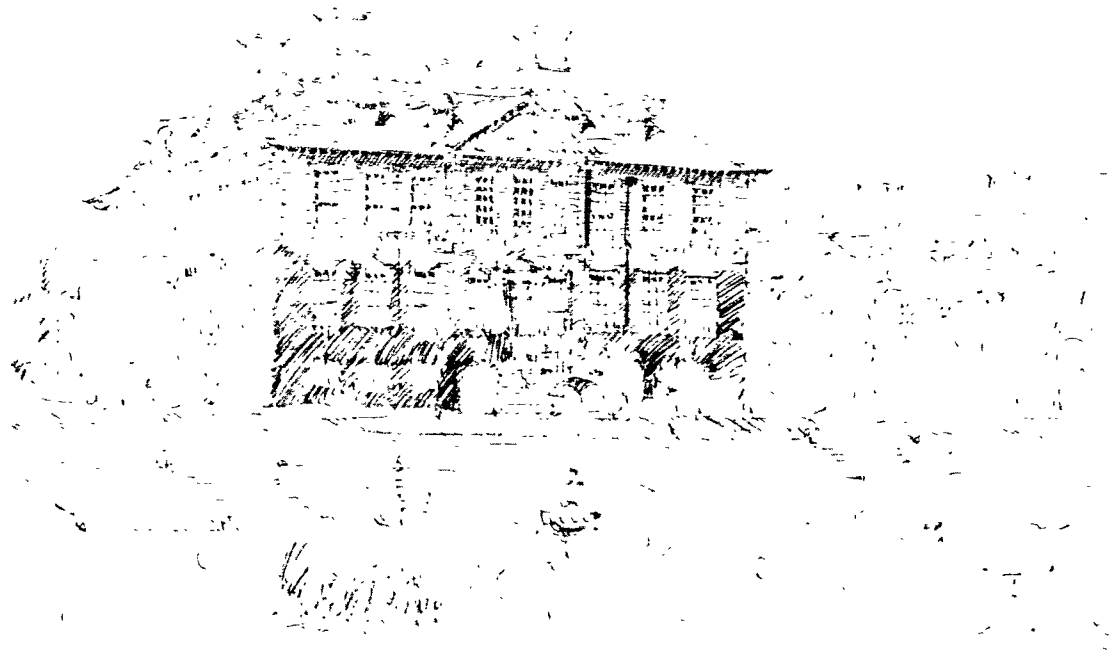
SKETCHES IN NORFOLK



C. Wootner Smith, Aug. 1907.

VIII.—BRECKLES HALL, NORFOLK

Breckles Hall dates from the early part of the 16th century. It is now being restored and enlarged. The house is built of brick and the quoin s are plastered over to represent stone finished flush with the brickwork, the mullion- and transomes of the windows being treated in the same manner. The chimneys are magnificent.



C. Wootner Smith, Aug. 1907.

IX.—MELTON CONSTABLE, NORFOLK.

The seat of Lord Hastings. The house was built about 1680, and has been attributed to Sir Christopher Wren. The sketch shows the garden front, the portion on the right being a modern addition.



SMOKE ABATEMENT.

By SIR WM. B. RICHMOND, K.C.B., R.A., D.C.L. [H.A.].

Read before the Royal Institute of British Architects, Monday, 17th May 1909.

MR. PRESIDENT AND MEMBERS OF THE INSTITUTE.—

I AM gratified that you have asked me to read a Paper upon the smoke question, because I feel convinced that a powerful body as ours is can not only do much to convince public opinion upon this important question, but that it could exercise influence upon all governing bodies which require to be pushed to act and to find means to alleviate, if not entirely dismiss, a nuisance, an unenlightened condition of affairs which is detrimental not only to health but to all kinds of property, and even to commerce. It is unnecessary for me to tell you what you all know as well as I do, namely, that smoke and the products, acids, &c., are detrimental to buildings as well as to all hard or delicate surfaces upon which they are deposited.

From the purely æsthetic side of the question there can be no doubt, namely, that a deposit of black upon surfaces which are intended by their designers to appear white contradicts the common sense of all of our designs. White shadows and black faces constitute an absurdity even to the tiro, and how much more galling must it be to you when you see your elaborate mouldings and ornaments screaming an ugly lie. It appears to me to be sentimental rubbish which even for one moment defends the colour of that portion of the west front of St. Paul's which has been made a black and unintelligible mass, wholly contradicting Wren's scheme. Gloom is certainly not dignity, nor does dirt and blackness constitute nobility of aspect or add to any historical memories, save those which a firm Legislature ought long ago to have tackled. The black condition of the outsides of so many of our public buildings and priceless works of art in architecture is not a thing to be proud of, but rather to be ashamed of, as evidencing the inertness of public opinion and the insensitive attitude of governing and public bodies which have continued and do continue to delay not only to legislate firmly, but to see that their legislation is put in action. Until we have cleaned London from the smoke of factories which do come under the Act it is useless to attempt to tackle the domestic chimneys.

What we have to do is to frame the clause in the Public Health Act in such a way that prosecution may be made easy and not difficult, and that could be done by the elimination of the word "black" from the clause, and substituting instead "all or any." The London County Council has had this change of wording before it for some little time, accepting a deputation from the Coal Smoke Abatement Society which was listened to with marked attention. I believe that if this Institute would frame and pass a resolution in accordance with the proposed change in the wording of the clause and send it to the Parliamentary Committee of the L.C.C. the Councillors on that Committee would be strongly influenced to pass the revision suggested. Continued expression of public opinion, especially that which is in embodiment hammering at it,

is the only way to persuade public bodies to act firmly and promptly. The Local Government Board is steadily remiss in sustaining or supporting the execution of Acts of Parliament in their relations to this Act: the present Minister we hoped to find our friend, but on the contrary all his promises before he got into power are not worth the breath with which they were uttered or the ink with which they were penned.

The sustained force of public opinion is the only remedy for Government official apathy and dilatoriness: there is nothing the Government official dislikes more than being prominently shown up in the Press—and it is excellent medicine for him. There is no doubt that public opinion is roused against the monstrosity of London dirt, and, slow as it is, except where pure commercialism is involved, the unthinking public begins to see that smoke meaning waste, and dirt meaning expense, should be, as far as possible, made an unnecessary evil.

One is bound to fear that on a question of aesthetics the abolition of smoke would take a long time to effect, but once prove to the purely commercial man that his pockets are lighter for it and he will immediately change the tone of his argument. The cost in hard cash to every individual in London arising from dirt caused by smoke and smoke alone is prodigious: the destruction resulting from it is terrible. Even what appear to be hermetically sealed cases fail to keep it out.

Many a time have I glazed, and as I thought finally pasted in the glass in a frame, pasted the backing board and imagined that I had conquered the invasion, when to my disgust, perhaps only a few months after the operation has been completed, I have found the inside of the glass blackened with fine soot powder and the drawing irreparably damaged. To all pictures soot is a deadly enemy even when dry: the deposit left by one black is an essential oil so powerful in its corrosive elements that a solvent to remove the stain, however slight, would have to be so strong that it would destroy the varnish and paint as well. This fact was told to my father by Faraday during the sitting of a Royal Commission when the removal of the pictures in the National Gallery to South Kensington was in contemplation: I think the Commission sat in 1860, since which time we know that South Kensington has become almost as deeply clouded by dirt and smoke as Trafalgar Square, and there, in South Kensington, are treasures for which the Government has paid hard cash still unprotected by a little manly legislation—legislation which would not injure but benefit all classes, including the manufacturer-offenders, because all smoke is waste fuel.

One of the greatest fallacies is, surely, that stringent laws concerning cleanliness may damage trades. There is only one class which benefits by our smoke, the class of the washer- and char-woman: every other trade or occupation is injured, even the very vested interests of the ultra-commercial, because dirt obliges extra labour, and extra labour is expensive. The gas companies might suffer, but what are these among so many? One of the ridiculous travesties of common sense is the fact that the electric light stations in London have been, and some of them are still, the chief offenders, creating darkness to produce light! The tram electric stations also are terrible producers of black smoke. From one in this neighbourhood I have seen the smoke travel on the atmosphere for at least a mile: in fact, Bedford Park, a rural district, is severely injured by this plague and selfishness on the part of the company. The Local Government Board declines to take action, though by law it is commanded to do so in default of the district authorities. Why is this? What is at the bottom of it? Votes! perchance: or vested interests: anyway it is disgraceful! The alteration I have already referred to in the wording of the Act would render it easy for magistrates to convict. Under its present reading it is difficult to prove that black smoke exists at all. Whether or no it looks black depends on the tone and colour of the sky, and on its position in relation to the sun at various times of the day. I do not like to venture to state the number of buckets of black

water removed from my mosaics and windows in St. Paul's, nor the quantity of black sediment left at the bottom of the pails after the water had lain still awhile : it was astonishing, and aggravating. Now, if this smoke is a nuisance—and as to that there can be no doubt whatever, and that in a large measure it can be removed—it is in the region of a national question, and a far more important one than many Acts of Parliament which only waste the time of the House, and are only such as may possibly, if ever enforced, do some good to certain sections. This is a question which concerns everybody, touches everybody more or less, the poor as well as the rich : for the poor it makes it impossible for their houses to be clean, it makes it impossible for them to grow vegetables in their gardens, it injures their health, because smoke precludes the admission through it of the most health-giving violet rays ; the darkness leads to depression, and depression to drink. It is harmful to every building : stone, marble, iron, steel, copper, bronze, even gold is injured by it. Precious fabrics must be kept under glass, and even then they are not immune from damage : it destroys in time the surface of oil pictures : it has injured, and still goes on injuring, the precious marbles in the British Museum and South Kensington. The sulphuric acid contained in each smut is a poison of great strength : it will rot copper wire in time : cords, string even of strong hemp, are eaten into, and many is the picture which has fallen from a wall owing to the rotting of copper wires or cords through the action upon them of sulphuric acid.

All the things I have mentioned are known to you ; it is no news that is told, it is just a reminder, as it were, in a swift-going period, with many important enterprises in the forefront, especially coming to architects, a section of the artistic community the most hampered and shackled by what is called civilisation, which in reality is obstructive to good and noble art, being nothing but commercialism gone mad because agriculture has been wrested from us by machinery. Just a reminder ! that you, as all of us are prone to do, may sometimes want water and forget the bucket. You want your buildings to remain as you have designed them, and perchance are apt to forget the cause, because it takes a good deal of coalition, and a still greater persistence of drumming and worrying, to make any Government, especially the English, attend to needs which do not immediately belong to party politics and to seat-saving or seat-getting. If the smoke nuisance were made such a popular cry that it became necessary for any " party " to take it up to get in, we should very soon have the deed done ; but when we learn, as we are learning, the hopeless muddles concerning the very existence of England as a country while amateurs in essential matters rule, how can it be wondered at that a great problem such as the smoke nuisance is has come to be regarded as a superficial nonentity ?

We are taught by proof that nothing will move any Government in their snug places in Parliament or officials in their offices but a regular bombardment of public opinion : when that is roused, officials become human, and are forced unwillingly to see that the old red tape is rotten and that new must be provided : when in its time this also becomes rotten, then must begin again the gyrations of the old wheel of pressure. One thing must always be mistrusted, the promises of those who are either in office or out of office or going to get office. A Government must be worried while it is in power, and that can only be done by the weight of public opinion.

All and every harm to health, to the joyousness of life, to the preservation of property public and private, to energies, and to the higher cultivation of the sense of the value of both nature and art, and above all the essential of every stream of light obtainable in this overgrown and artificial city, has been stated over and over again. Statistics upon every branch of the subject are ready to hand, and the most unimaginative Englishman can follow statistics if nothing else. Therefore what is wanted is the gathering together of statistics which shall show how in various departments of art, industry, health, even morals, this nuisance of smoke is detrimental to the country at large. It will be resisted by monopolists, of course, and by the

self-interested classes: it might become a cry of interference with manufacture and labour: but that plea can very easily be broken down. It is an old excuse and one we know of perfectly well, but it is one which, by educating the masses to see for themselves, will very soon find its proper level in the region of untruth.

Before we begin to make an attack on household smoke, let us set the law in motion as it now stands and use all our endeavours, public and private: yet it will be well to bear in mind that there are both grates and fuel which are practically smokeless. It is not to be expected that we should adopt the German stove heating system in our houses—that I, for one, hope will never come. The open fire is a grand institution, and there is no goddess of Olympus more snug, more given to good fellowship than Hestia: still, for general heating of a modern detached house, has the holocaust no recommendations? Gentle, diffused warmth, reaching, say, from 58° to 60° over the entire house, would indeed add to comfort, and probably also to health: then the open fire would be just a great luxury, and wood might be used for it in place of coal. I suppose afforestation is a coming thing, anyhow it ought to be: in that case ere long wood should be cheap. And, compared with coal, how infinitely more pleasant is the heat wood promotes, and how absolutely innoxious its gas is, as well as its ash. I wish, and I am by no means alone in wishing, that the poorer classes would combine in tenements, even in streets, and have one cookery place in a given area: and, further, that all workmen's houses or rows of houses were provided with heat as they are now provided with gas or even electric light. All these items in time, if tried now in some district or districts, might become customary. Then we should have begun at the right end for the diminution of smoke from private dwellings. It is no use to legislate till something has been offered which is equally pleasant as the open fire: but even this latter might come to be regarded more as a luxury than a necessity if some system of combination or system of general heating were devised and promoted.

To bring my remarks up to a point, leaving out all other points than the law as it stands, I would suggest that the Institute should draw up a memorandum to the London County Council, get it signed by every member, praying that in the clause in the Public Health Act of 1891 relating to smoke the word "black" shall be omitted, or shall have inserted after it the words "and all other smoke." This change of a word or short part of a sentence would enable magistrates to know where they are with the law. Plaintiffs would then only have to prove a nuisance, and not have to prove its colour—an almost impossible thing to do.

DISCUSSION OF SIR WM. RICHMOND'S PAPER.

The President, Mr. ERNEST GEORGE, in the Chair.

MR. H. A. DES VŒUX, M.D., Hon. Treasurer Coal-smoke Abatement Society: I have much pleasure in seconding the proposition of Sir William Richmond and moving a vote of thanks to him. It was his letter in *The Times* some ten years ago that started the Coal-smoke Abatement Society in London, and it has been a very uphill battle we have had to fight. We have had to fight two very great obstructions, the obstruction of the monopolists and those interested in opposing us, and also even a greater obstacle—the obstacle of indifference. It is this indifference which has struck me more than the opposition of those who are interested. When I began to fight I thought that every dweller in

town would be interested in fighting the smoke fiend. But it is astonishing what little interest is taken in it. Everyone complains of it in the winter, but when we get to April and May people forget all about it. The fight, however, has to be kept up all the year round. Last year I had an opportunity of seeing a fog created in the middle of June. I was high up in a house in Maida Vale, where one can get a view over a great part of London, and in the distance, rather below me, I could see hundreds of small houses all emitting a yellow brown smoke, and above the houses, at a little distance from each other, two enormous black clouds were forming. It was a hot, muggy, slightly rainy day, and these

clouds joined together in the shape of a "V." I watched them forming, and then went home. By the time I was back in Westminster the familiar smoke fog of London had formed, and absolutely shut out all daylight. I had to turn on the electric light in my house and pull down the blinds. Now that fog could not have been formed by factories of any sort, for there were no factory chimneys in view—only the chimneys of hundreds of small houses smoking from the fires cooking the midday dinner. This was sufficient to cause a fog black enough to plunge Westminster into darkness. It is no use moving against manufacturers if the kitchen chimney is to go scot-free. I am certain in my own mind—and here I differ from Sir William—that there is as much smoke created from the kitchen chimneys as from all the factory chimneys put together. Our hot dinners, especially in private houses, are produced at the cost of injury, not only to our next-door neighbour, but to distant neighbours, for it is well known that smoke will travel at least thirty, forty, and sometimes fifty miles before it drops. If the Institute of Architects were to take up this one question of cooking in private houses, an enormous amount of good would be done. It is perfectly easy to cook smokelessly, and the food is as well cooked by gas as by coal. The School of Cookery tells me that some kinds of cookery are much better performed by gas than by any other fuel: and from practical experience in my own house I can affirm that gas-cooking is as good as any other. I have often had dining at my own table people who told me they would never eat a meal cooked by gas, as they could always taste the gas in the food. When after dinner I have informed them that what they had just eaten was gas-cooked they have declined to believe me, insisting that if it had been they should have tasted the gas. It is, however, an absurdity to say that the gas could be tasted. I eat gas-cooked food every day of my life, and I am certain it is not true. Architects in the houses they build could bring to bear an enormous influence, and if they would aim at that one matter of cooking by gas an improvement would be very soon noticeable in London. If you begin by gas in the kitchen, I am certain you will soon follow with gas upstairs. People, I know, hold different views on that point, and I am not going to labour it; but I believe myself that gas for heating a house, especially for bedrooms, has an advantage which is hardly yet thoroughly appreciated by those in authority. There are at least 500,000 gas stoves in use in London, and if gas were as deleterious to health as has been said, I think we should have heard more about it by this time. Turning from that question, I should like to refer to the action which the County Council is taking at the present time. I think the Institute could help us enormously. We have approached the County Council to get the law changed, and the Public Control Committee of the Council has recommended

that the word "black," in the clause in question in the Public Health Act, should be removed. We call a smut black, but there is very little smoke that is absolutely black. The Public Control Committee also recommend that the words "all chimneys," which at present only refers to factory chimneys, should include all places in which the process of manufacture is carried on, and the chimneys of any building or place where furnaces are in use. Those companies who carry on operations under statutory powers have raised great objections to the Smoke Abatement Acts: for instance, the Central London Railway, when summoned for issuing smoke, pleaded that they could not run trains without creating smoke. They were fined very heavily, and they appealed to the High Court. Fortunately for us they met with a very unsympathetic reception there: the High Court told them they should have thought of that before they got the Act of Parliament passed. They had to stop the smoke, and I am glad to say that they have reduced their coal consumption from 1,100 tons per week to 600 per week, although they run more trains. I do not think they can grumble at our action. The County Council also want to bring under the Act the chimney of any Government factory or workshop. That is very important, for the Government have enormous factories at Woolwich and thereabouts, and when the wind is blowing from that direction the smoke from those chimneys blows over London and does a great amount of harm. There is no reason why the Government factories should be exempt from the law. Another recommendation of the Public Control Committee is that in certain cases the Council should be allowed to act either in conjunction with or at the request of or in agreement with any sanitary authority. London is divided up into about thirty sanitary authorities, and some of these—notably the City of Westminster—carry out this Act of Parliament very well; but some do it very badly, some do it only by compulsion, and some do not do it at all. The County Council want power to act when other authorities are either afraid of the expense, or afraid of the manufacturers in the district, or else refuse to do it at all. It would be a great thing if they had the power, because the London County Council are our very best friends in London. Then the Council want to have the power to act where the smoke comes from electrical or other industrial works, or from premises used for the treatment or disposal of refuse or for disinfecting purposes. They really want to take action where the buildings of a local authority emit smoke. A local authority is divided up into different committees—the Baths and Wash-houses Committee, the Electricity Committee, and others and some of the buildings under their control emit smoke. Apparently it is impossible, in the present state of the law, for one committee of a Borough Council to prosecute another committee; so that if the Electricity Committee has electric light-

ing works which emit an enormous amount of smoke, the Public Health Committee of the same authority cannot prosecute. The result is that the only electricity works emitting smoke in London are those belonging to Borough Councils, because where they belong to a company the Borough Council prosecute the offenders. But where the works are owned by the Borough Council they cannot be prosecuted by themselves. Further, it is necessary that the County Council should have power to take action outside its own district. There is one very notorious district outside the London County Council—the district of West Ham—which contains an enormous number of factories, all of which emit smoke. There is practically not a factory in West Ham which has not been reported to the Coal-smoke Abatement Society as creating a smoke nuisance almost every hour in every day of the week. The Corporation of West Ham is about the only corporation in or about London which has never taken any action whatever. We have reported to the Local Government Board somewhere about 2,000, if not more, nuisances from West Ham alone, and the Local Government Board have taken no action at all. Now the County Council are very anxious, with a Corporation like West Ham, which is always in default, that they should have power to act in spite of them. This has been recommended by the London County Council, and this is another case where the Institute could help us a great deal. The matter has now been referred to the Finance Committee. If you know as much about these local affairs as I do, you know that sometimes Finance Committees will spend enormously, and sometimes they are penurious to a shilling. The Finance Committee of the London County Council have made a report upon it. They say they do not like to act upon it, because they do not know to what expense it is likely to lead. But the expense of smoke to London in its injury to art and other things is at least £5,000,000 a year. The cost of a few prosecutions cannot be more than £1,000 a year, and for the London County Council to shy and jib at a trifling expense of that kind seems to me penuriousness that ought not to be allowed. If the Institute would bring its influence to bear to show that corporate bodies outside were watching them it might be of advantage. We, the Coal-smoke Abatement Society, a poor feeble Society—though perhaps a rather pugnacious one—are the only people at present who have moved at all, and I am sure if you would help us a great deal can be done to settle this question which is now in the balance. Any movement on your part to show that you recognised that the London County Council were doing their duty would be an advantage, and help them in what they would wish to do if they felt that they had London behind them.

MR. PAUL WATERHOUSE, M.A.Oxon. [F.]:
It is a great pleasure to me to be allowed to second

the vote of thanks to Sir William for his Paper. It is on a subject which it must be difficult to handle alluringly, but he has certainly made his Paper most attractive in form as well as most appealing in matter, and has delivered it in a tactful and graceful way. And we want to thank him for something more than this. Agitations are conducted, as a rule, not by people who live in the sublimer atmosphere of art; and I have often felt when I have seen his name in the forefront of this battle that we all, as artists, owe a special debt to him for—I will not say the dirty work—but I may say the smoky work—which he has undertaken on behalf of the community at large. I think that for a man of his distinction and occupation to step into the front rank of this very arduous and thankless job is a very great boon to us. Something has been said about indifference, and I think that goes home to all of us. Perhaps it would be right for us to analyse that indifference. I have thought it over, and it seems to me that possibly it is due in some measure to the fact that we are a long-suffering race. I do not mean the architects, but human beings. Most of us have been very well brought up, and we have been taught to recognise certain things as unavoidable and which must be endured. These fogs we are apt inertly to suppose come upon us as a sort of visitation of Heaven. We have been taught this evening that they do not; but I believe we most of us would no more think of asking for fog to be removed than we would ask the gardener to remove the North Wind, or than the Neapolitan would send for the police to stop the eruptions of Vesuvius. We take these things for granted. That is a great mistake, and I feel I have been stirred up to a state of dissatisfaction on the subject, which I hope is seething in all of us. As architects perhaps we have another excuse. One of the things which keep us bright and cheerful is that we are always contending with difficulties. We look upon it as part of our daily work to meet obstacles and not to get them removed. In all our work we find, I think, that the whole brunt of the business consists of dealing with obstacles, whether it is the site that is too small, or the client who will not pay enough, or that there is an ancient light controlling our elevation. It is with a kind of dismay that we learn that our client has bought an addition to the site, and has squared the neighbour opposite, and is going to spend £10,000 more. One of the difficulties in which we so innocently rejoice is the "dirt" difficulty; we know we have to contend with the soot. Most of us criticise our work by saying: "How is it going to look when dirty?" We have to rely upon form. Therefore it is a kind of virtue in us that we have had this subject in front of us as a difficulty to be met, and not as a difficulty to be removed. But now I think we may put all that on one side. I feel stirred up, and I thank Sir William and Mr. Des Vaux for that stirring up, and for helping us to see that we are putting up with some-

thing which we ought not to put up with. I feel heartily ready to join in adding a little push in the right direction with the County Council. I do not know that I can add anything. Discussion is out of the question. We none of us can feel that there is anything debatable on this subject. We are all now on one side about it, and if any of us have a lurking feeling that we want to stick to the old difficulties in our design, we none of us want to stick to the difficulties in a drawing office. Those who, like myself, do part of their work in the country and part in London realise the enormous difference between town and country in the mere matter of dirt on the drawing board: on that ground alone, even if we had no feelings on the larger issues. I feel quite sure we should be very glad to see fog and smoke and the smuts removed.

SIR ASTON WEBB, R.A. [F.]: It has been said that there seems to be no opening for discussion on this subject. We are all agreed on that, and I think we are also agreed on another point—viz., the debt we owe to Sir William Richmond for having taken up this matter, and for having continued it so strenuously and continuously for many years, until there seems almost a chance that in time people will realise that smoke is not a desirable thing in London. I am not at all sure that after a time they will not begin to think that it might possibly be removed. I had the pleasure of seeing one of our President's fires some time ago in which Coalite was burning. We took the hint, and since then we have burnt Coalite in the hope that we were doing our little best towards diminishing the smoke nuisance. I cannot say that Coalite is much pleasure to poke. I have occasionally tried to stir it, but it is always the same: it is always alight, but it never gets any forarder for poking. At the same time I feel that in a small way we are doing our duty towards reducing the smoke of London, and following the example of our President. I think a great deal might be done with gas fires. I have had the misfortune to have the "flu," and the doctor said that a fire must be kept up all night. To keep a fire alight all night requires attention and some disturbance, whereas a gas fire in a bedroom could be kept alight without any disturbance. All doctors now agree that there is no disadvantage in a gas fire. Some years ago I had a visit from a gentleman who wanted to build a factory in Hammersmith. He said he had an excellent site, and asked me if I would put the factory up. He wanted to have a big chimney at the end of the site, and he asked if I thought anyone would be likely to have an objection. "Who lives about there?" I asked. "At the end of the site there is a place called Beaver Lodge," he replied, "and I believe a well-known artist lives there. Do you think he would object to a chimney?" I said, "I feel sure that he would, and if you take my advice you will take your factory somewhere else." He was rather annoyed;

I lost the commission, and Sir William Richmond lost a chimney at the end of his garden! When I was a young man I used to go very often to the Church of St. James the Less in Westminster, at that time, and I daresay still, considered one of the finest churches in London. It contained a fine fresco, by Watts, occupying the whole of the space over the chancel arch up to the roof. We all admired this enormously. Month after month, however, it seemed to get darker and darker, and after a few years' time the fresco had absolutely disappeared. A fine rich colour remained, it is true, but as to a picture there was nothing left. The two ladies who gave it were very disappointed at the result, but nobly came forward and offered to have it reproduced in mosaic, and this was carried out. In about ten years' time the mosaic was as black as the picture had been. We hear a great deal about painters and sculptors combining with architects in the decoration of buildings, but people will not decorate their buildings when they know that in a few years the decoration will become almost invisible. Sir William Richmond seems to be fortunate in having his mosaics washed every now and then, but that is a different thing. I passed one or two marble-fronted buildings as I came here this evening. Although they have not been up long, they are already getting brown and stained with smoke. I hope the Coal-smoke Abatement Society does not confine its operations to London. We know very well that Birmingham, Manchester, Sheffield, and Leeds are even worse than London. When a building is put up in any big town a thick veil soon forms over it, and, however much care is taken of the building, it is hidden and brought down to a uniform level. If we architects do not take an interest in the matter, and if our Institute does not, I should like to know how we can expect anyone else to do so. It is extraordinary that we do not take more interest in it. As to the alteration in the wording of the clause in the Act referred to by Sir William Richmond, at first I did not understand what it was that was wanted: it seemed as though we were to say that black was white, or that black was not white. I feel sure this Institute will do what it can to stop this smoke nuisance. Since my retirement from the Presidency I have become a person of no importance here, but I feel confident that the Council will take the matter up and, after having thoroughly gone into it, do whatever Sir William Richmond wishes. Smoke darkens our windows, degrades our houses, depresses our spirits, and will in course of time make us a miserable, commonplace people. I hope we shall all unite and back up Sir William. I am not a member of the Smoke Abatement Society, but I will become one if he will allow me. I do not know what course one has to take.

SIR WILLIAM RICHMOND: Five shillings a year subscription.

SIR ASTON WEBB: I shall pay it with pleasure.

I am sure that everyone agrees that we are greatly indebted to Sir William Richmond for bringing the matter before us. I feel that every architect should take the greatest possible interest in advancing the aims of the Society.

THE PRESIDENT: This matter, I think, is of intense interest, and one is astonished at the apathy that has been displayed on the subject. We are accustomed to dirty smoke, which is a type of the diabolical. Smoke has always been regarded in that light: but we have become accustomed to it. Sir Aston has mentioned what we may do for ourselves. I think in every house the matter should be considered, and not only in factories. Sir Aston has referred to my use of Coalite. I think that is one cure for the evil. I am told that our chimney does not want sweeping, and that the chimney-sweep could get no soot from it. I burn wood on the hearth—(not with Coalite)—and that is quite the pleasantest fire you can have. The charming blue smoke which comes from it does no harm to the atmosphere. In bedrooms and dressing-rooms gas fires are excellent. They got a bad name because many tried to use them when they had no flue. The product in that case is, of course, horrible and offensive. With gas, you can have your fire whenever you like and turn it off when you want to. It is the pleasantest fire you can have for bedrooms and dressing-rooms, and I feel that I for one contribute nothing to the foul smoke which is ruining our city and our health, and creating fogs.

The vote of thanks to Sir Wm. Richmond being put from the Chair was carried by acclamation.

SIR WILLIAM RICHMOND: It will be one of the happiest evenings of my life when I leave here and feel that our Coal-smoke Abatement Society has the blessing, and not only the blessing but the co-operation, of this most influential body. I confess that during the many years that we have been hard at work—my Committee harder than I—upon this question, going uphill against public opinion (for not only have we been abused, but I have had a number of anonymous letters of abuse, and on two occasions my life has been threatened), I have felt very sorry that my own body—the Royal Academy—has been more remiss than any other in supporting a Society which was doing everything that it possibly could to preserve the pictures painted by that body as well as by others outside it. I do not mind

in the least that they should hear this. In appealing to you I appeal to a large-hearted institution that will influence public opinion. This is not only a national question affecting England, but it affects the whole world. If I am spared the time, I hope to be in Paris at the end of this month to help to inaugurate a similar society to ours in that great city, which is becoming almost as foggy as our own. I have received a message from the Syndic of Rome asking me to draft a letter to be read at the Municipality, showing how rapidly the ancient buildings in Rome are becoming injured by the introduction of coal-smoke. Last spring when I was in Rome I took particular occasion to note the difference which had taken place during the five years that I had been, not absent from the city, but had failed to make such observations. The effect of the coal-smoke in Rome is perfectly terrible. Unless there is a very great agitation, and the Italians are inclined to act entirely in accordance with it, before very long those marvellous white antiquities will become, not indeed so bad as our own, but going in that direction. Our dear old Venice is also in a lamentable condition. I may say that five years ago when I was there, I had the honour of dining with his Majesty the King of Italy, and he asked me to write a letter to the papers upon the smoke nuisance in Venice. I did so: whether it has had any result I do not know. Last April in Cairo I saw a London fog, also up the river, owing to the sugar factories, where previously everything was bright and splendid. In Japan I am told it is the same thing: I have had letters from there asking what means can be adopted to remove it, and what I say is confirmed by a Japanese architect sitting near to me. So that this is not only an English question, but it is a question of all over the world. India is the same, I hear so on the best authority. If we are the magnificent empire we say we are, why do we not set the example? If we are the first nation in the world, and are going to have twenty *Dreadnoughts*, let us have *Dreadnoughts* which will tell the rest of the world that they are not to make smoke. Let the highest civilisation be our *Dreadnought*. Then we shall be the leading nation, not only as regards the making of guns and hammering other people's heads, but in the cause of the highest intellectual civilisation of the world—the promotion of beauty!



9 CONDUIT STREET, LONDON, W., 22nd May 1909.

COMPETITIONS.

Grimsby Town Hall Extension Competition.—Members of the Institute are requested to communicate with the Secretary before taking part in this Competition.

New Arts Building, Liverpool University.—The President has nominated Mr. E. Guy Dawber [F.] as Assessor in this Competition.

National Museum of Wales.—The three Assessors in this Competition are Sir Aston Webb, R.A. [F.], Mr. J. J. Burner, A.R.S.A. [F.], appointed by the Directors of the Museum; and Mr. Edwin T. Hall [F.], appointed by the President of the Institute.

Cemetery at Chislehurst.—The President has nominated Mr. Ernest Newton [F.] to be Assessor in this Competition.

CHRONICLE.

The New Charter and its Objects.

The following letter, dated 10th May, has been addressed from the Institute:

To the Members of the Royal Institute of British Architects,—

We take the opportunity of drawing your attention to the new era which has opened for the Royal Institute in the recent grant by His Majesty the King of a Supplemental Charter, under which a new class of Licentiates is created.

This, it is hoped, will enable large numbers of architects to join the central body, so that it may embrace practically the whole profession, thus greatly enlarging the power and influence of the Institute.

The new Charter is the result of a policy unanimously adopted by the Institute after a thorough and exhaustive enquiry, in which the views of all sections of our members and others were elicited.

New By-laws to give effect to the Charter have been drafted with the greatest care, after thorough study and consideration, and will be considered by the general body at a Special Meeting on the 24th May. The draft By-laws were sent to all members with the JOURNAL of the 8th May.

As soon as all architects are thus practically united within the Institute, an opportunity will be afforded of considering the possibility of submitting a Bill to Parliament, which is the second part of the adopted policy.

It now remains for all to do their utmost to further the great objects we have in view, and to support the Council in completing the work so auspiciously inaugurated by His Majesty, our Patron.

ERNEST GEORGE, *President.*

EDWIN T. HALL

LEONARD STOKES

JAMES S. GIBSON

JOHN W. SIMPSON

Vice-Presidents.

ALEXANDER GRAHAM, *Hon. Secretary.*

Mr. Graham's Retirement from the Hon. Secretaryship.

In obedience to the resolution passed at the Annual General Meeting [Minutes, *ante*, p. 473] the following letter has been addressed to Mr. Alexander Graham, F.S.A. :—

5th May 1909.

DEAR MR. GRAHAM,—At the Annual General Meeting on Monday last a number of appreciative references were made in the speeches dealing with the Annual Report to your retirement after ten years of service as Honorary Secretary of the Royal Institute. I was directed by a resolution of the Meeting to write to you and express the sincere regret of the members at the loss of your services and their warm appreciation of the great work which you have done for the Royal Institute during your tenure of the office of Honorary Secretary.—Believe me, yours very sincerely,

IAN MACALISTER, *Secretary.*

The Annual Elections.

In the balloting papers issued last week Mr. A. MARSHALL MACKENZIE, LL.D., A.R.S.A. [F.], candidate for the Council, is erroneously described as of Aberdeen. Mr. Mackenzie has an office in Aberdeen, but most of his practice is in London, and his principal office is at 13 Waterloo Place, Pall Mall.

The Domestic Chimney and Fogs.

In view of the subject before the Institute last Monday, it is satisfactory to note that the coal-smoke nuisance in London is at present engaging the attention of the Public Control Committee of the London County Council, and they recommend the Council to seek additional legislative powers with the object of its lessening. It is not proposed at present to suggest any action in regard to the smoke from fires in private houses; but the Committee express the view that, unless public opinion brings about some radical improvement in this direction, serious attention must be given to the point. It is estimated that one-half of the smoke in London comes from this source, which at the present time does not come within the law. As

indicating the great amount of smoke discharged from domestic chimneys, it has been noticed that some of the densest London fogs have arisen on days when the great bulk of business premises have been closed, and a bank of smoke in London has been seen to rise to a height of from three to four thousand feet, and to be carried by the wind in a sunlight-obscuring trail to a distance of fifty miles.

The Housing and Town Planning Bill.

At the meeting of the London County Council on Tuesday the following recommendations of the Parliamentary Committee were adopted:—

That amendments be sought in the Housing, Town Planning, &c. Bill, to provide—

- (i.) That the local authority be afforded an opportunity of considering the modifications that may be made by the Local Government Board in a scheme under clause 2 in those cases where such modifications would impose additional liability on the local authority, and of withdrawing the scheme if it does not see its way to agree to the modifications.
- (ii.) That all powers of the Local Government Board to compel the Council to carry out any of the powers or provisions of the Housing of the Working Classes Act, 1890, be deleted from clauses 10 and 11.
- (iii.) That the provisions for exemption from by-laws under clause 22 (1) (2) be extended to cases under Part III. of the Housing Act 1890, and that no exemption from the operation of the London Building Acts be granted without the concurrence of the Council.
- (iv.) That clause 30 providing for a quinquennial survey and register of working-class dwellings do not apply to the County of London.
- (v.) That clause 36 be amended so as to provide that working-class lodging-houses shall be exempt from inhabited house duty where the charge for lodging does not exceed 1s. per day per person.
- (vi.) That all expenses incurred by the Council in carrying out Part I. (Housing) of the Bill shall be charged on the general county rate and not on the special county rate.
- (vii.) That all powers of the Local Government Board to compel the Council to prepare or execute a town planning scheme be deleted from the Bill.
- (viii.) That any question as to whether property is injuriously affected or increased in value to be determined under clause 57 be referred to an arbitrator to be appointed by the Local Government Board.
- (ix.) That clause 8 of the first schedule to the Bill be amended by the deletion of the words "but shall not, except in such cases as the Board otherwise direct, hear counsel or expert witnesses."
- (x.) That such modifications in matters of detail as in the opinion of the Parliamentary Committee may be desirable in the interests of the Council be authorised.

The L.C.C. Architects' Education Department.

Some proposals for placing the L.C.C. Architects' (Education) Department under the control of the Superintending Architect have been lately under consideration at Spring Gardens. The Education Committee however have had the matter before them, and have passed the following resolutions:—

That the Education Committee are strongly of opinion that no scheme for the reorganisation of the Architects' (Education) Department will be satisfactory which does not provide for the continuance of that department as a separate department under the sole direction of one chief officer specially appointed for the purpose, and for the

amalgamation, under such officer, of the whole of the architectural work of the Council under the Education Acts.

That, in the opinion of the Education Committee, the chief officer referred to in the foregoing resolution should be a person of special experience in educational architecture, to be selected by the General Purposes Committee on the recommendation of the Education Committee, and that the commencing salary for the post should be £800 a year, rising by annual increments of £50 to £1,000 a year.

That, in the opinion of the Education Committee, in order to avoid a breach of continuity, especially with regard to schools already planned, Mr. Bailey, on his retirement, should be appointed consulting architect (Education) for a term of two years at a salary of £500 a year, in addition to his pension, with a view to superintending the execution of the plans already prepared under his supervision and giving any advice for which he may be asked.

The Widening of Blackfriars Bridge.

The steel floor of the addition to Blackfriars Bridge has now been laid over the first and fifth spans, these being the spans which are adjacent to the banks of the river. The floor of the second span from the north end is nearly complete, and it is expected that the flooring of the remaining two spans, the third and fourth, will be finished during the present month. All the piers and main ribs have been erected. The construction of the tramway line will be begun from the north end by the contractors for that work, Messrs. Dick, Kerr & Co., about the beginning of June; and the rest of the tramway work will be carried out as quickly as progress with the steel construction of the bridge permits. The main contract, which is being executed by Sir William Arrol & Co. (Limited), stipulates that the whole undertaking is to be completed by February, but it is expected that the work, including the tramway, will be finished by the end of this year. The width of roadway will then be 73 feet, and there will be a 16 feet pavement on either side. The total width between the parapets will be 105 feet, making Blackfriars Bridge the widest bridge across the Thames. After the widening has been opened the surface of the portion of the bridge now being used will be entirely relaid.

A New York "Fireproof" Building.

What is claimed to be an absolutely fire-proof building is now in course of construction in New York, at the corner of Fourth Avenue and Seventeenth Street, from the designs of Messrs. Goldwin, Starrett, and Van Vleck. The building is to be of seventeen stories, and is intended to be used for mercantile and office purposes. The skeleton steel frame type has been adopted, the steel columns, beams, and girders being protected for all basement and outside columns in Portland cement mortar, and for all interior columns by at least three inches of hollow terra-cotta blocks laid in Portland cement mortar. The floor arches throughout are of hollow terra-cotta blocks in Portland cement mortar, extending ten inches below the soffit of the beams, and all floors cement-finished on a concrete filling. The window sashes in the court walls and party-

walls are to be of standard hollow metal type, glazed with wire plate-glass, and the windows on the street fronts to be of Kalameined-metal-covered frames and sash. The stairways are to be constructed with extra heavy cast-iron stringers and risers with sheet-iron heads. All doors leading into stairways will be of the standard type with hinges, locks, &c., approved by the New York Fire Insurance Exchange. The elevator shafts are to be of standard construction enclosed in 6-inch terra-cotta block partitions. A complete 50-per-cent. sprinkler equipment with all necessary apparatus will be installed, the sprinkler pipes throughout the building being concealed. An automatic fire-alarm service, a special building signal service, and the watchman's clock system in each stair-landing on every floor of the building are other features to be incorporated. The idea is to meet to the fullest extent the requirements of the New York Board of Fire Underwriters and the Fire Insurance Exchange.

A Forgotten Oriental Empire.

At the Royal Institution Professor John Garstang, Rankin Professor of Methods and Practice of Archaeology at the University of Liverpool, has delivered the first of two lectures on "The Hittites," his subject being "Monuments of Egypt and Asia Minor." At the outset of his lecture, he asked that indulgence might be accorded to the treatment of a new science dealing with an unknown people using an unknown script and language. The subject, however, was not altogether new. There were four sources of evidence—(1) the monuments and archives of the Pharaohs recounting their warfare with the Kheta and their allies in the north of Syria; (2) the references to the Hittites in the Old Testament, vague at all times, particularly in the Book of Genesis, but more readily intelligible after the settlement of the Israelites in Canaan; (3) the later records of Assyria, giving glimpses of the final overthrow of the Hatti; and (4) a series of prehistoric and unexplained monuments associated with peculiar hieroglyphic inscriptions in the north of Syria. It was in pondering upon these materials that Professor Sayce came to the natural conclusion that the unexplained monuments in question must be those of the Hittites; and, finding the same hieroglyphics even in the west of Asia Minor, was led in 1876 to his dramatic inference of a forgotten empire, an Oriental Power rivalling those of Egypt and Assyria. It was a brilliant hypothesis supported in its main features by the discovery of Hittite archives at Boghaz-Keui, in the north centre of Asia Minor, which included diplomatic correspondence with the Courts of Babylon and of Thebes.

The Servian Wall in Rome.

The Times correspondent, writing from Rome on the 12th inst., notes the united action now being taken by Roman archaeologists and artists in

defence of the historic remains of their city. The latest relic threatened is a very perfect fragment of the old Servian wall, of which so little is now left. Ascending the Via delle Finanze from the Nicola da Tolentino one is confronted by a high bluff upon which the Villa Spithöver stands. This Villa and the land behind it has been bought by the Sallustiana Building Society, who intend to level the whole area and build a number of houses on it. To improve their scheme they asked permission to continue the Via delle Finanze in a straight line, driving a new road through the present high bluff of masonry and loose earth which now blocks it, and so give a new frontage to their proposed houses. But right across that bluff, below and at the side of the villa, runs a tract of some thirty or forty yards of the old Servian wall. The preliminary work of clearing away the earth above has laid bare this remnant and disclosed its singularly perfect condition. It is of grey tufa, *cappellaccio* as it is called, like most of the Servian wall; and the stones of the outside facing, small rectilinear blocks, are perfectly dressed and lined. It is, perhaps, the most characteristic specimen of the old Servian fortification, the first walls of Rome, that is now left. In order to carry out the proposed road this would have to be destroyed. The Archaeological Committee which advises the Roman Municipality at once protested against such a scheme, and refused their consent. Other archaeological societies in Rome supported them, as did also the Academy of St Luke and the representatives of Roman art. Professors Boni and Lanciani and many other archaeologists and artists, have strongly declared for the preservation of the wall.

THE REGISTRATION OF ARCHITECTS.

To the Editor JOURNAL R.I.B.A.,—

SIR,—I notice in the remarks made by Mr. Woodward at a recent Business Meeting of the Institute, and published in the last issue of the *JOURNAL R.I.B.A.*, that he had in practice taken exception to an auctioneer acting as a surveyor, presumably under the Building Act, in dealing with the sections appertaining to party-walls. He might, I think, have gone further and objected to either house agents or auctioneers acting as surveyors in such capacity, for it is simply astounding what these gentlemen will sometimes do. I remember one instance where a house agent gave away the whole flank wall of an independent house as a party-wall without any payment whatever from the adjoining building owner save and except the payment of his own fees, no party-wall award having been either entered into or taken up, thereby leaving no record of the transaction. A builder who was in my office this morning told me that he had for years been called

upon by house agents to pay as much as 12½ per cent. commission to house agents for work given to him, and that since the passing of the recent Act. As he naively observed, the client has to pay that amount more for the work, and then the house agent charges the client for supervising the work. I have also heard of them demanding commissions from the profession for the introduction of work, and alleging that they have been offered as much as from 30 to 50 per cent. of an architect's fees for such introductions. It is quite clear that it is time the profession took up some definite position with regard to these matters, even if the public remain in a state of obscurity concerning them.

Yours faithfully,

A FELLOW.

MINUTES. XIV.

At the Fourteenth General Meeting of the Session 1908-09, held Monday, 17th May 1909, at 8 p.m. Present, Mr. Ernest George, *President*, in the Chair; 26 Fellows (including 12 members of the Council), 23 Associates (including 1 member of the Council), 2 Hon. Associates, and several visitors:—

The Minutes of the last Meeting being before members for confirmation, the Secretary stated that the Minutes as printed in the *JOURNAL* [p. 475], required amendment by the insertion of the words "except as regards artistic copyright" in the 3rd line of the 4th paragraph, so as to read:—Mr. Wm. Woodward [*F.*], having reviewed the Report at length, the criticisms and questions raised by him and other speakers—except as regards artistic copyright—were replied to by Mr. Edwin T. Hall, *Vice-President*, Mr. W. H. Atkin Beny [*F.*], the Chairman, and the Secretary. The amendment having been agreed to, the Minutes in other respects were passed and signed as correct.

The following Associate, attending for the first time since his election, was formally admitted by the President and signed the Register—viz.: Hugh Healey.

The following candidates for membership, found by the Council to be eligible and qualified according to the Charter and By-laws, were nominated for election—viz.: AS FELLOWS (6): Arthur Thomas Bolton [*A.*, 1888, *Science Metallist* 1893, *Institute Metallist (Essays)* 1895]; Frederick Dare Clapham [*A.*, 1901]; Henry Arthur Crouch [*A.*, 1893, *The Printer* 1896]; John Stanley Heath [*A.*, 1900]; Edward Skinner [*A.*, 1893 (Colombo)]; Percy Leslie Waterhouse, M.A. Cantab. [*A.*, 1895]. AS ASSOCIATES (4): Donald Macpherson Gordon [*Colonial Examination*], Montreal, Canada; James Charles Monell [*Colonial Examination*], 1908, Melbourne; Harold Beckwith Richards [*Probationer* 1903, *Student* 1904, *Qualified* 1908], Detroit, Mich., U.S.A.; William Arthur Rigg [*Probationer* 1903, *Student* 1906, *Qualified* 1908].

A Paper by Sir Wm. Richmond, K.C.B., R.A., D.C.L. [*H.A.*], on SMOKE ABATEMENT having been read by the author and discussed by Dr. Des Vaux, Hon. Treasurer of the Coal Smoke Abatement Society, Mr. Paul Waterhouse, M.A. Oxon. [*F.*], Sir Aston Webb, R.A. [*F.*], and the President, a vote of thanks was passed to the author by acclamation.

The President having reminded members of the Special General Meeting summoned for Monday 24th May for the consideration of the Council's proposals for the revision of the By-laws under the new Supplemental Charter, the proceedings closed and the Meeting separated at 9.30.

REVIEWS.

MARBLE.

Marble and Marble Working. By Wm. Renwick. With numerous illustrations and coloured plates. 8. Lond. 1909. [George L. Cresswell and Sons, 7, St. Paul's Churchyard Court.]

On this subject Mr. Renwick has written a fascinating book, having gathered information of various sorts, from different sources far and wide, on marble rocks and their geological history, on quarrying and working, and on the application of the finished materials to the building and beautifying of architecture, and to a variety of other useful purposes, scientific and domestic. In addition, a chapter is devoted to marble imitations of various kinds. The work is profusely illustrated with printed photographs of quarries and machinery, many of which are of interest. There are also colour prints of polished marble specimens, which, if of little instructive value, give cheerful interest to the book.

Much of the information given will be found interesting to architects, and may be of some practical use to marble workers and others connected with building. The contents of the book are not well arranged, and there is too much repetition of the same information under different headings. The general index is very incomplete, and it is difficult to find what one wants. The book as a work of reference would be improved by a complete bibliography of existing works on the subject. These are numerous, commencing with the classics and coming down to the present time. As regards materials and methods of marble-working, some of the early books, especially the Latin, Italian, and French, are instructive, and show the practical knowledge the old past men possessed. As regards rocks used as marbles, the ablest geologists of the past as well as those of the present day have given us the results of their researches in a simple, readable manner. The latest useful work on the subject is the Catalogue of the Mineral Collections of the British Museum, by Mr. L. Fletcher, F.R.S., recently issued by the Trustees at the price of a shilling.

The author gives chapters on quarries, ancient and modern, with methods of working in various countries. The information with illustrated examples is well "up to date," being explanatory and useful; it is doubtful, however, if some of the new American methods can be adapted to Britain, though they may be of service in Belgium and Italy. The skill displayed by the Carrara quarrymen and their ability in moving masses in their mountain quarries are not likely to be surpassed, at least for some time to come.

Mr. Renwick has much to say on marble as building material, showing the superior value of Greek pentelikon over other marbles for London building purposes. In all the information he gives about pentelikon marble, however, he omits to tell us about

the marble deposits from which the London supply has come the last ten years or so. These white deposits extend over a large tract of country, and, like Carrara, the marble varies in quality from good to bad, almost in every quarry, both as regards purity of colour and compactness of crystallisation and also as to size of blocks obtainable. The classic structures of Athens and the new Government buildings were erected with marble obtained from the south face of the mountain, whereas the marble recently imported has been extracted from the north face, and the bulk of very large blocks from the base of an opposite mountain on the north. These later quarries produce blocks almost any size, and being alongside the railway are conveniently placed for transit. The author remarks that this marble is "non-absorbent." This is incorrect. The discoloration in all probability will turn out to be caused by the impurities of the London atmosphere, although he remarks later, "It is practically impervious to atmospheric impurities." Nothing, however, is likely to happen that will impair the durability of the material. For important works careful selection is requisite, as in the case of the doorway at Cornhill alluded to by the author as weathering well after ten years' exposure.

In the chapter devoted to British and colonial marbles those referring to India are the most important, the white of "Makrana" being excellent. It is a pity these ancient quarries are not worked on such business lines as the American methods illustrated, which would seem equally applicable to them. The blue-purple colour plate given of Canadian sodalite is interesting as a decorative stone, but hitherto its decorative value has mostly been misapplied.

Devonshire marbles are fairly described, but the famous Ipplepen quarries, which produced the fine monolith columns on the staircase of the Royal Academy, and a number of similar size used at the National Provincial Bank, Threadneedle Street, are barely noticed; nor the Green Devon used at the Brompton Oratory.

The Derbyshire Hopton Wood stone the author calls a marble; this is confusing. Hopton Wood is a good fine greyish white carboniferous limestone suitable for interior work, but not for out of doors where rain can get at it. The author's reference to the Gordon Pedestal as weathering well is inexact; as a matter of fact it is not weathering well, except the projecting cornice, which is protected by a lead covering. The stone wears precisely the same as Portland; the fossils standing up show the original surface, the softer parts become rain-washed-out. It does not weather better than carefully selected Portland stone, if as well.

More might have been said about Derbyshire and Staffordshire alabaster, a very useful material that has been in continuous demand for sculpture and interior decoration since mediæval times.

No mention seems to be made of the old marble

industry carried on at Ashford, near Bakewell, established a century ago to work up Derbyshire marbles by water power; nor of the mosaic workers of Matlock and Buxton, where the unique Blue-John Spa and rare Derbyshire marbles were so skilfully worked up, encouraged by Gell of Hopton, the famous Italian traveller.

The chapter on marble-working machinery is practically exhaustive and useful for reference, as showing modern methods, but experience proves that they are not all an economic success for general work where there is little repetition. At the last Paris International Exhibition there were shown fascinating machines of all sorts, but most of them were soon abandoned. English marble machinery has usually been built too heavy or too light; one shakes itself to pieces, the other vibrates too much for producing true work. The Italians are now making the best of machinery, equal in quality to that of the Belgians, and although Italian labour is cheap they use all sorts of labour-saving machines.

The method described of fixing polished marble slabs on wall faces with $\frac{1}{4}$ -inch wire cramps is certainly very poor. Flat gun-metal cramps properly designed must be better. At Aix-la-Chapelle the Cathedral interior has been recently marbled all over with slabs which stand clear of the wall, being fixed with bronze studs which honestly show, like the fixings of the old porphyry slabs in Westminster Abbey. Newly built wet walls are difficult to contend with; they ought to be backed with some sort of coating, damp-resisting.

Little need be said about artificial marbles, although for some reason the author has devoted a chapter to them. These imitations have been brought out at frequent intervals during the last fifty years, some of them being clever and promising, but hitherto they have proved mostly failures, only lasting until the promotion money has been exhausted. Scores of the specifications have been patented: these with the foreign ones can be seen at our Patent Office.

A list of marbles in ordinary use is given as a supplement, and others are mixed up in different parts of the book. These are very incomplete and the descriptions are not always correct.

There is no mention of an excellent Italian white marble quarried by Henraux of Serravezza. This marble has a slightly bluish tinge and breaks with a conchoidal fracture: it is nearly all taken by the French sculptors in Paris. Istrian stone or marble, of which Venice is built, also appears to be overlooked. This is perhaps the finest, light-coloured stone known, and it is obtainable in blocks of large dimensions. It varies much in quality and colour in different quarries.

The cleansing of marble when dirty is often done by incompetent workmen, who deliberately wash it down with hydrochloric acid. This takes off the face of the marble, which is ruinous to the material.

The author gives much enlightening information, showing in a comparative way the "go-ahead" advance made by America and other countries compared with England. Japan has all sorts of good marbles, statuary and coloured, and they are manufacturing with Belgian machinery. The time may come when they may be serious competitors to our western countries.

Mr. Renwick's book will certainly be found a valuable addition to our present published knowledge of marble and marble working, but readers will form their own opinions as to whether there is, or is not, occasionally in the text a sort of masked advertisement in favour of selected quarry proprietors and manufacturers whose actual advertisements appear bound up with the book, while old-established firms of the highest repute, British and foreign, are omitted. If this view is correct it must lower the standard of the work as a book of reference on the subject.

WM. BRINDLEY.

ITALIAN GARDENS.

The Art of Garden Design in Italy. By H. Inigo Triggs [A.]. London: Bursar 1906. Illustrated by 73 photographic plates reproduced in outline, 27 plans, and numerous sketches in the text taken from original surveys and plans supplied mainly by the authors, and 28 plates of photographs by Mrs. Aubrey Le Blond. Ed. by J. J. 1906. Messrs. Longmans, Green & Co., 39 Paternoster Row.

The niche that this work is designed to fill is to group together for purposes of instruction the plan and certain topographical views (not the most artistic pictures) of the characteristic Italian gardens in order to elucidate the plans. This is a sound method when educational purposes are to be served. A plan of itself is an indeterminate way of conveying an idea of a garden, and pictures, even photographs, are oftentimes misleading when compared with the actual on the spot, although they may be pleasing as pictures: but a plan accompanied by photographs specially selected to illustrate it, we can to some extent piece together and make concrete, whether we have seen the actual or not. If otherwise, we have a picture book served up with a few racy chatty comments: and thus, when pleasure and amusement are the object, a different selection of views may be made. There are being produced to-day many books of photographs and coloured views of the Italian gardens, some fairly true, and others true enough to satisfy a realist or a person who sees only the outer facts of nature, yet utterly devoid of and failing even to convey suggestions of the passionate and poetic sublimity of these classical demesnes of romance and witchery. To feel the immensity and the mystery of these ancient palaces and gardens they must be seen, and then it is possible to warm up the imagination and read into such a photograph as the view towards the Casino Villa D'Este (plate

114) and the views of the Borghese the feeling of sunlight in play and eerie grandeur which anyone with the poetic response can only feel in their presence. It is doubtful whether the sombre trained vision of the English artist is capable of doing justice to the magic of the Italian gardens, and we are less capable of doing justice to their design. If they baffle the artist and designer they also elude description. On page 47 is a short attempt by Shelley to describe the precipitous gardens of the Villa D'Este which does strike a note or two of response. "The scene," he says, "from the colonnade is at once the most extraordinary, and the most lovely that eye ever beheld. On one side is the mountain, and immediately over you are clusters of cypress trees of an astonishing height that seem to pierce the sky. Above you, from among the clouds as it were, descends a waterfall of immense size, broken by the woody rocks into a thousand channels to the lake. On the other side is seen the blue extent of the lake and the mountains, speckled with sails and spires. The terraces, which overlook the lake under the shade of such immense laurel trees as deserve the epithet of Pythian, are most delightful."

The certainty and ease of the classic in its own clime is always lacking in our home attempts; the disparity with our own landscapes is always apparent. Even from a Trentham palace with all its ample and lavish theatre of a garden we turn away, saying, "No, these ancestral ghosts won't do here." The first great lesson to learn from the Italian gardens is their perfect suitability to the heroic landscapes which are their setting, and that they fittingly express the stirring traditions of the historical ground which they cover. This cannot be effected without seeing them and studying them on the spot. The same note of fitness may be claimed for the characteristic French gardens, but there are some people who are for ever upbraiding the Frenchman because he is not Italian, and the English likewise because his homely note is not French or Italian. What one likes to feel about a house or a garden is that it is the right thing for the right place, and for every site there is the one appropriate house and the one garden to accord with it.

There is, however, much to be gleaned in architectural garden designs by those who stay at home in the way of proportion, and of their details in the shape of measured drawings. There are not as many of these in the book as we could wish—measured drawings, for instance, of the rest-house, fountains, &c., whereby their proportions may be determined; but considering its already ponderous magnitude it would seem invidious to suggest more; although, in passing, it might be said that many of the photographs which occupy a whole page at present could conveniently be cut down to a half or quarter page. Each of the characteristic gardens would need a monograph to itself to do justice to the detail and

proportions of the features of adornment, or at least to convey to the student a sense of their proportions and detail, not for him to slavishly copy them should he ever get the opportunity of doing things on the heroic scale, which I doubt if he ever will. This work, which has doubtless entailed much labour and research, will be specially helpful to anyone who has seen the gardens, and to those who are daily experiencing the hundreds of difficulties which are constantly occurring; but I doubt whether it will serve such a lasting purpose as the author's former excellent work dealing with the Gardens of England and Scotland.

THOMAS H. MAWSON [H.A.].

THE TOWN-PLANNING BILL.

The Sociological Society, whose mission, under the presidency of Lord Avebury, is to promote investigation and advance education in social science, has been moved by the Bill now before Parliament to take up the subject of Town-Planning. The question was referred to the Cities Committee of the Society, and after a long and painstaking inquiry the Committee have drawn up the following Report:—

I.

We welcome and highly appreciate this Town-Planning Bill, and we early decided that it was not necessary for this Committee to enter into its discussion in detail, or that of its proposed amendments. We have addressed ourselves essentially to the problem of Town-Planning itself, as raised by the study of particular types of towns and districts involved; and to the nature and method of the Preliminary Inquiry which we are unanimously of opinion is necessary before the preparation of any Town-Planning Scheme can be satisfactorily undertaken. We have reason, however, to fear that schemes are in incubation, alike by municipal officials, by public utility associations, and by private individuals, expert or otherwise, which, whatever their particular merits, are not based upon any sufficient surveys of the past development and present conditions of their towns, nor upon adequate knowledge of good and bad town-planning elsewhere. In such cases the natural order, that of Town Survey before Town-Planning, is being reversed; and in this way individuals and public bodies are in danger of committing themselves to plans which would have been widely different with fuller knowledge, yet which, once produced, it will be difficult to modify.

We have therefore, since February last, addressed ourselves to the initiation of a number of representative and typical City Surveys, leading towards Civic Exhibitions, and these increasingly

under municipal auspices in conjunction with Public Museums and Libraries, and with the co-operation of leading citizens representative of different interests and points of view. In Leicester and Richmond, Woolwich and Chelsea, Dundee and Edinburgh substantial progress has been already made, and with moderate outlay and clerical assistance it is now possible rapidly to promote and assist such surveys in many other towns and cities. Our experience already shows that in this inspiring task of surveying, usually for the first time, the whole situation and life of a community in past and present, and of thus preparing for the planning scheme which is to forecast, indeed largely decide, its material future, we have the beginnings of a new movement—one already characterised by an arousal of civic feeling, and a corresponding awakening of more enlightened and more generous citizenship.

II.—SUGGESTED AMENDMENTS TO BILL, THIRD SCHEDULE.

We trust that the enactment of a Preliminary Public Inquiry previous to the preparation of a Town-Planning Scheme is actually within the spirit and purpose of the Bill. Yet even if so, its precise wording as it stands does not make this sufficiently clear to municipalities and others interested; they are hence in danger of taking the very opposite course, that of Planning before Survey. Our suggestions towards amendments guarding against this are, however, of the very simplest kind, viz.:—

Page 29. THIRD SCHEDULE.

§1. Insert (a) *Preliminary Local Inquiry—to include the collection and public exhibition of materials illustrative of Situation, Communications, Industry and Commerce, Population, Town Conditions and Requirements, etc.*

§4. Line 19. After *affected*, insert *and bodies or societies interested.*

III.—REASONS FOR EMENDATIONS AS ABOVE.

As the Bill at present stands, without the above amendment, a Town Council, or its Streets and Buildings Committee, may simply remit to its City Architect, if it has one, more usually to its Borough Surveyor or Engineer, to draw up the Town-Planning Scheme.

This will be done after a fashion. But neither these officials nor their Committees have as yet had time or opportunity to follow the Town-Planning movement even in its literature, much less to know it at first hand from the successes and blunders of other cities. Nor do they usually possess the many-sided preparation, geographic, economic, artistic, etc., which is required for this most complex of architectural problems, one implying moreover innumerable social ones.

If expert advice be moved for, the Finance Committee of the Town Council, the ratepayers also, will tend to discourage the employment of an exter-

nal architect. Moreover, with rare exceptions, even the skilled architect, however distinguished as a designer of buildings, is usually as unfamiliar with town planning as the town officials; often, if possible, more so. For they have at least laid down the existing streets: he has merely had to accept them.

No doubt, if the plan thus individually prepared be so positively bad, in whole or in part, that its defects can be seen by those not specially acquainted with the particular town or with the quarter in question, the Local Government Board can disapprove or modify. But even accepting what can be thus done at the distance of London, or even by the brief visit from a Local Government Board advisory officer, the real danger remains. Not that of streets, etc., absurdly wrong perhaps, but of the *long pass standard*—that of the mass of municipal art hitherto, despite exceptions, usually of skilled individual initiative.

Town-Planning Schemes produced under the too simple and too rapid procedure as yet possible under the wording of the Bill (without amendments as above) may thus escape rejection under the Act rather than fulfil its spirits and aims: and will thus commit their towns for a generation, or irreparably, to designs the coming generation may deplore. Some individual designs will no doubt be excellent, but there are not as yet many skilled town-planners among us. Even in Germany, still more in America (despite all recent praise, much of which is justified), this new art is still in its infancy.

As a specific example of failure to recognise and utilise all but the most obvious features and opportunities of even the most commanding sites, the most favourable situations, Edinburgh may be chosen. For despite its exceptional advantages, its admired examples of ancient and modern town-planning, its relatively awakened architects, its comparatively high municipal and public interest in town amenity, Edinburgh notoriously presents many mistakes, disasters, and even vandalisms, of which some are recent ones. If such things happen in cities which largely depend upon their attractive aspect, and whose town council and inhabitants are relatively interested and appreciative, what of towns less favourably situated, less generally aroused to architectural interest, to local vigilance and civic pride? Even, with real respect to the London County Council and the record of its individual members, past or present, it must be said that this is hardly a matter in which London can expect the provincial cities to look to her for much light and leading as a whole, while her few great and monumental improvements are naturally beyond their reach.

In short, *possible* Town-Planning Schemes may be obtained on the method permitted by the wording of the Bill: but the best *possible* can rarely be expected. From the confused growth of the recent industrial past, we tend to be as yet easily contented

with any improvement; this, however, will not long satisfy us, and still less our successors. This Bill seeks to open a new and better era, and to render possible cities which may again be beautiful: it proceeds from Housing to Town (Extension) Planning, and it thus raises inevitably before each municipality the question of Town-Planning at its best—in fact of City Development and City Design.

IV. METHOD, AND USES OF PRELIMINARY INQUIRY.

The needed Preliminary Inquiry is thus readily outlined. It is that of a City Survey. The whole topography of the town and its extensions must be taken into account, and this more fully than in the past, by the utilisation not only of maps and plans of the usual kind, but of contour maps, and if possible even relief models. Of soil and geology, climate, rainfall, winds, etc., maps are also easily prepared.

For the development of the town in the historic past, antiquarian material can usually be collected without much difficulty. For the modern period, since the railway and industrial period have come in, it is easy to start with its map on the invaluable "Reform Bill Atlas," and compare with this its plans in successive periods up to the present.

By this study of the actual progress of town developments (which have often followed lines different from those laid down or anticipated at former periods) our present forecasts of future developments may usefully be aided and criticised.

Means of communication in past and present, and in possible future, of course need specially careful mapping.

Social Surveys of the fulness and detail of Mr. Booth's well-known map of London may not be necessary: but such broader surveys as those of Marr, in his survey of Manchester; or of Miss Walker, for Dundee, and the like, are most desirable wherever any adequate civic betterment is not to be ignored.

The preparation of this survey of the town's Past and Present may usually be successfully undertaken in association with the Town's Library and Museum, with such help as their curators can readily obtain from the Town House, from fellow-citizens acquainted with special departments, and, when desired, from the Sociological Society's Cities Committee. Experience in various cities shows that such a Civic Exhibition can readily be set in preparation, and without any serious expense.

The urgent problem is, however, to secure a similar thoroughness of preparation of the Town-Planning Scheme which is so largely to determine the future.

To this Exhibition of the City's Past and Present there needs therefore to be added a corresponding wall-space: (a) to display good examples of Town-Planning elsewhere; (b) to receive designs and suggestions towards the local Future. These may

be received from all quarters ; some, it may be, invited by the municipality, but others independently offered, and from local or other sources, both professional and lay.

In this threefold Exhibition then of their Borough or City, Past, Present, and Possible, the municipality and the public would thus have clearly before them practically the main outlines of the Inquiry needful before the preparation of the Town-Planning Scheme ; and the education of the public, and of their representatives and officials alike, may thus, and so far as yet suggested, thus only, be arranged for. Examples of town plans from other cities, especially those of kindred site or conditions, will here be of peculiarly great value, indeed are almost indispensable.

After this Exhibition, with its individual contributions, its public and journalistic discussion, its general and expert criticism, the municipal authorities and their officials and the public would be in a very different position as regards knowledge and outlook from that which they occupy at present, or can occupy if the short and easy off-hand method above criticised be left possible under the Act. The preparation of a Town-Planning Scheme, as good as our present (still limited) lights allow, can then be proceeded with. This should utilise the best suggestions on every hand, selected freely from designs submitted, and paying on ordinary architectural rates for so much as may be accepted.

As this scheme would have to be submitted to the Local Government Board, their inspector would have the benefit of this mass of material, with corresponding economy of his time and gain to his efficiency. This inspection would essentially be on the spot ; any critic who may be appointed would naturally require to do this. His suggestions and emendations could thus be more easily and fully made, and more cheerfully adopted.

The selection of the best designs would be of immense stimulus to individual knowledge and invention in this field, as to a worthy civic rivalry also.

V.—CONCLUSION.

The incipient surveys of towns and cities, above referred to, have already clearly brought out their local individuality in all respects, in situation and in spirit. No single scheme of survey can therefore be drawn up so as to be equally applicable in detail to all towns alike. Yet unity of method is necessary for clearness, indispensable for comparison ; and after the careful study of schemes prepared for particular towns and cities, your sub-committee has agreed upon a general outline, applicable to all towns, and easily elaborated in local detail. It is therefore appended, as suitable for general purposes, and primarily for that Preliminary Inquiry previous to the preparation of a Town-Planning Scheme which is the first and last recommendation of this Committee.

APPENDIX.

OUTLINE SCHEME OF PRELIMINARY INQUIRY AND SURVEY.

The Preliminary Inquiry necessary for the adequate Preparation of a Town-Planning Scheme involves the collection of detailed information upon the heads given below. Such information should be as far as possible in graphic form, *i.e.* expressed in maps and plans illustrated by drawings, photographs, engravings, etc., with statistical summaries, and with the necessary descriptive text : and thus be suitable for Exhibitions in Town House, Museum or Library.

The following General Outline of the main headings of such an Inquiry admits of adaptation and extension to the individuality and special conditions of each town and city. The preparation of more detailed schemes of survey is already well advanced : *e.g.* for Leicester, Woolwich, Richmond, Chelsea, Dundee, Edinburgh, etc., and the Committee is prepared to assist with others.

SITUATION, TOPOGRAPHY AND NATURAL ADVANTAGES :—

- (a) Geology, Climate, Water Supply, etc.
- (b) Soils, with Vegetation, Animal Life, etc.
- (c) River or Sea Fisheries.
- (d) Access to Nature (Sea Coast, etc., etc.).

MEANS OF COMMUNICATION, LAND AND WATER :—

- (a) Natural and Historic.
- (b) Present State.
- (c) Anticipated Developments.

INDUSTRIES, MANUFACTURES AND COMMERCE :—

- (a) Native Industries.
- (b) Manufactures.
- (c) Commerce, etc.
- (d) Anticipated Developments.

POPULATION :—

- (a) Movement.
- (b) Occupations.
- (c) Health.
- (d) Density.
- (e) Distribution of Well-Being (Family Conditions, etc.).
- (f) Education and Culture Agencies.
- (g) Anticipated Requirements.

TOWN CONDITIONS :—

- (a) Historical : Material Survivals and Associations, etc.
- (b) Recent : Particularly since 1832 Survey, thus indicating areas, lines of growth and expansion, and local changes under modern conditions, *e.g.* of streets, open spaces, amenity, etc.
- (c) Present : Existing Town Plans, in general and detail. Streets and Boulevards.
Open Spaces, Parks, etc.
Internal Communications, etc.
Water, Drainage, Lighting, Electricity, etc.
Housing and Sanitation (of localities in detail).

LOCAL GOVERNMENT AREAS (MUNICIPAL, PAROCHIAL, ETC.)

TOWN-PLANNING, SUGGESTIONS AND DESIGNS :—

- (A) Examples from other Towns and Cities, British and Foreign.
- (B) Contributions and Suggestions towards Town-Planning Scheme, as regards :—
 - (a) Areas.
 - (b) Possibilities of Town Expansion.
 - (c) Treatment in detail (alternatives when possible).

THE TEMPLES OF PÆSTUM.

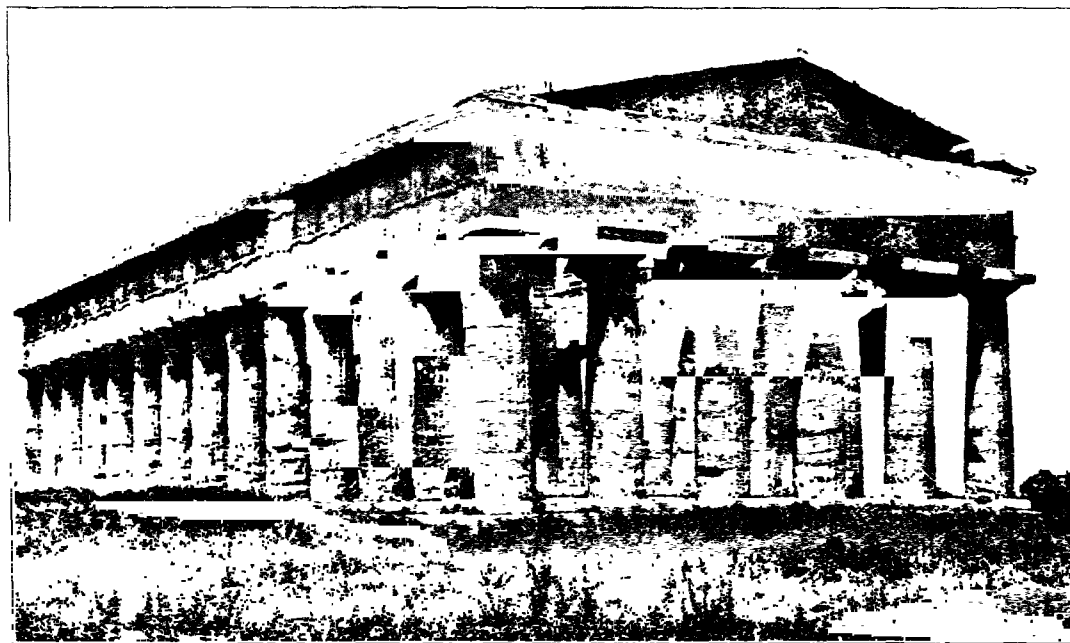
By FREDK. R. HIGGINS [L.], *Godwin Report* 1905.

FIG. 1.—PÆSTUM: TEMPLE OF NEPTUNE.

They stand between the mountains and the sea ;
 Awful memorials, but of whom we know not !
 The seaman, passing, gazes from the deck.
 The buffalo-driver, in his shaggy cloak,
 Points to the work of magic and moves on.
 Time was they stood along the crowded street,
 Temples of God-! and on their ample steps
 What various habits, various tongues beset
 The brazen gates for prayer and sacrifice !
 Time was perhaps the third was sought for Justice ;
 And here the accuser stood, and there the accused ;
 And here the judges sate, and heard, and judged.
 All silent now ! as in the ages past.
 Trodden under foot and mingled, dust with dust.

ROGERS.

ONE is reminded of this fine description in approaching the solemn and deserted city of Pæstum. These mighty ruins, standing by the edge of the Tyrrhenian Sea, bounded inland by a mountain chain, isolated almost from the habitations of man, and retaining so much beauty in their ruin, both in themselves and in the enchantment of their situation, produce an awe-inspiring effect upon the mind. They appear in almost utter loneliness,

and but few travellers even seem to visit them, notwithstanding that the railway from Naples now directly passes Pæstum. The distance from the former place is about sixty miles in a southern direction, passing by Pompeii and Salerno. The temples appear to be under the charge of the Italian Government.

What makes the Pæstum remains of importance in architectural history is that they include, in the Temple of Neptune, what is probably one of the earliest specimens of Grecian architecture extant, representing the beginnings of that Doric Order which eventually reached its culmination and perfection in the Parthenon at Athens. This temple with the two others—or, as more generally regarded, one other and a basilica—form possibly one of the most interesting and impressive groups of Grecian architecture in existence. Indeed, according to Gwilt,* “some have thought that the temples of Pæstum exhibit more severe simplicity and perfec-

* See *Elements of Architectural Criticism*.

tion of design than the edifices of Athens, and that the former are in a more correct and classical style. Lusieri was of this opinion, and considered that 'in those buildings the Doric Order attained a pre-eminence beyond which it never passed; not a stone has been placed there without some evident and important design; every part of the structure bespeaks its own essential utility.' "

The origin of this ancient colony still appears to be somewhat obscure. According to Mazzochi, "Pæstum was founded by a colony of Dorenses, or Dorians, from Dora, a city of Phœnicia, the parent of that race and name, whether established in Greece or in Italy. It was first called Posetan, or Postan, which in Phœnician signifies Neptune, to whom it was dedicated. It was afterwards invaded and its primitive inhabitants expelled by the Sybarites. This event is supposed to have taken place about 500 years[†] before the Christian era. Under its new masters Pæstum assumed the Greek appellation Posidonia, of the same import as its Phœnician name, became a place of great opulence and magnitude, and is supposed to have extended from the present ruin southward to the hill, on which stands (or stood) the little town called from its ancient destination Acropolis. The Lucanians afterwards expelled the Sybarites[‡] and checked the prosperity of Posidonia,

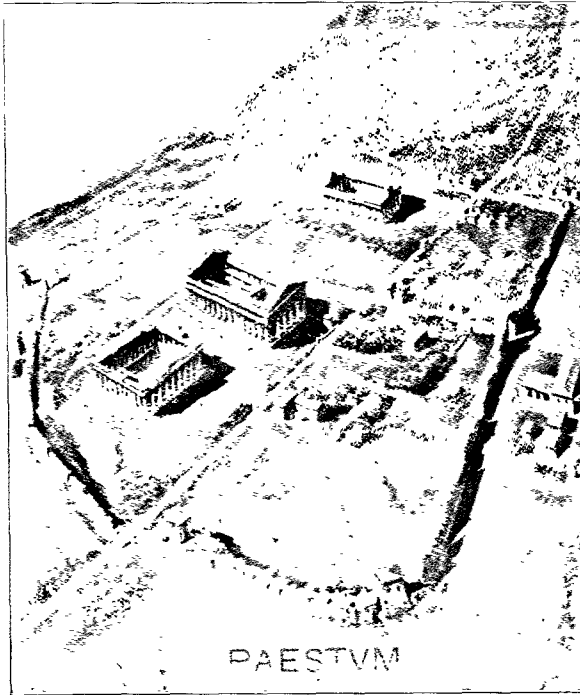


FIG. 2.—GENERAL VIEW.

which was in its turn deserted and left to moulder away imperceptibly. The original city then recovered its first name, and not long after was taken and at length colonised by the Romans." This was probably about 280 before the Christian era, and it would

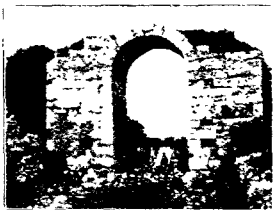


FIG. 3.—PORTA DELLA SIBINI.

be at this period that the city received the name by

* See Eustace's *Classical Tour*, 1802.

† Other authorities say 550 B.C.

‡ About 350 years B.C. Wilkins's *Vitruvius*.

which it has since been generally known. The Saracens, crossing from Sicily, appear to have destroyed Pæstum at the beginning of the tenth century, driving its inhabitants into the neighbouring hills, its destruction being completed by Robert Guiscard, who, in 1080, stripped some of its buildings of columns to decorate the church he had founded at Salerno—where they may still be seen—since which time the city has remained abandoned and more or less forgotten.

So much for what little appears to be known of the general history of the colony. As to the period in which took place the construction of its still existing monuments, Wilkins considers that "we ought to date the construction of the great temple during the time in which the city remained under the dominion of the settlement from Sybaris," and the Sybarite Greek origin seems to be the one most generally adopted. The

Grecian character of this building, at any rate, is unmistakable, and sufficiently well attests its origin. As we have seen, this would fix the time as somewhere between 550 and 350 years B.C. As to how far the other remains are to be attributed to the Lucanians or to the Roman colonists he seems uncertain. An examination of the two other temples shows evidence of decadence which would suggest a considerably later date for these.

The buildings of Magna Græcia are considered to take the following chronological order—Syracuse, Pæstum, Selinus, Segesta, and Agriguntum.

The ruins of this one-time flourishing colony, the foundations of which quite possibly date from the seventh century before Christ, consist of the city walls and gates, three temples, remains of a

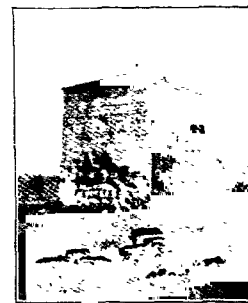


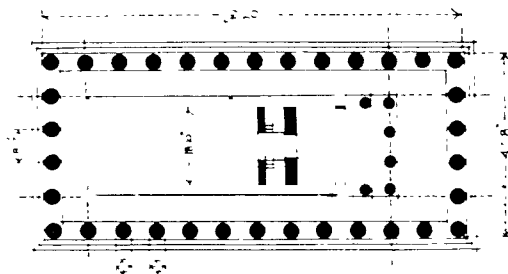
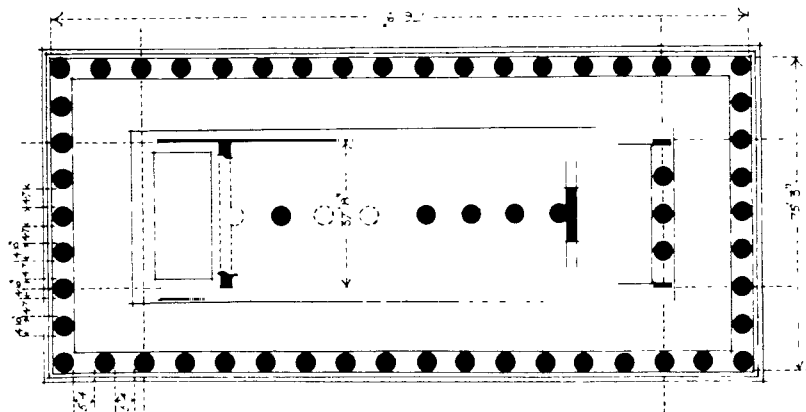
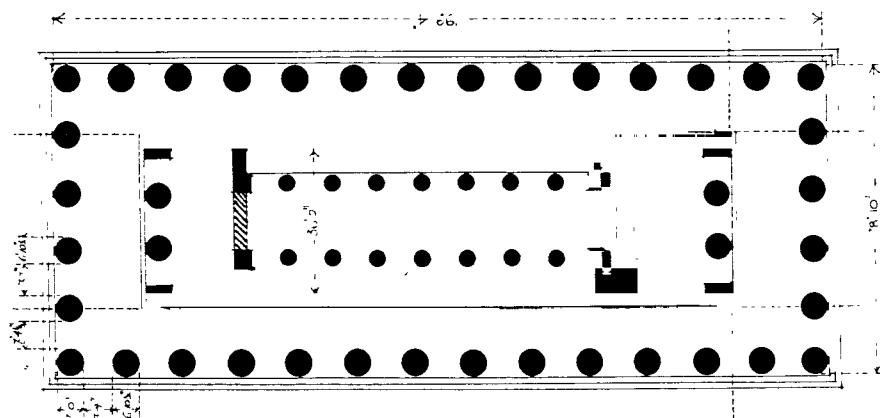
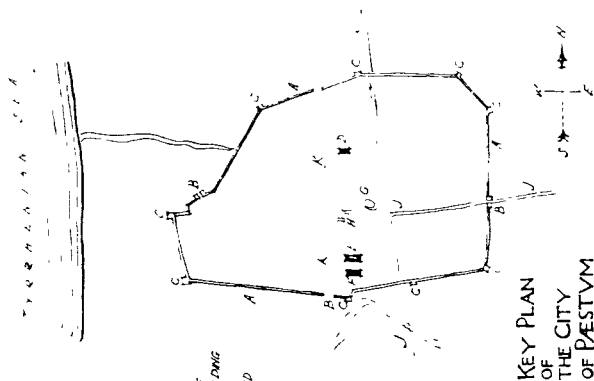
FIG. 4.—PÆSTUM, EAST TOWER.

THE TEMPLES OF PÆSTVM GVLF OF SALERNO, S. ITALY

N.B.—THE PLANS ARE TO THE SAME SCALE AND THEREFORE
SHEN THE RELATIVE SIZES OF THE TEMPLES

REFERENCES

- A = CITY WALL
- B = GATES
- C = TEMPLES
- D = THEATRE
- E = THE BASILICA
- F = REMAINS OF
- G = REMAINS OF
- H = REMAINS OF
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- CC = REMAINS OF
- DD = REMAINS OF
- EE = REMAINS OF
- FF = REMAINS OF
- GG = REMAINS OF
- HH = REMAINS OF
- II = REMAINS OF
- JJ = REMAINS OF
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- RR = REMAINS OF
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- III = REMAINS OF
- JJJ = REMAINS OF
- KKK = REMAINS OF
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theatre, an amphitheatre, some tombs, and towers round the boundary walls. The enclosing walls of the city, built of travertine stone, take a somewhat pentagonal shape, as shown on the key plan, and are stated to be about three English miles in circumference, about five metres in width or thickness, and to have reached at some points a height of 15 metres. The bulk of the walling is at present much lower than this, so that one crosses it in many parts without difficulty. There are four gateways, one facing each point of the compass, that on the east, the opposite side to the sea, being the *Porta della Sirene*, the best preserved of the four, and taking its name from a bas-relief with which it was formerly ornamented. This gateway has a semicircular arch of Roman construction, from which it may reasonably be inferred that the construction of the city walls and gates was due to that people, with a view to their making the conquest of the city more secure. It seems not improbable that the construction of the two inferior temples was contemporary with the building of the city walls.

The ancient main street, if it coincides with that now existing, appears to have run from north to south through the town, and to have roughly divided it into two parts. The temples follow near this road, and on the west side of it, the northernmost being the Temple of Ceres, the next that of Neptune (commonly called the Great Temple), while the southernmost is known as the *Basilica* or *Curia*. An undoubtedly ancient paved road of the city runs parallel with that previously mentioned at a short distance from the western end of the temples. Excepting the temples, the other remains are in almost too ruinous condition to command detailed attention. They are of interest only as additional indications of the probable extent and importance of the public buildings of the city.

The great hexastyle temple of Neptune is the finest, as it is also the most ancient, of these buildings. The structure is peripteral-hypæthral, and has six columns at the ends and fourteen at the sides. It is 78 feet 10 inches in breadth by 199 feet 4 inches in length, as compared with 100 feet by 228 feet of the Parthenon at Athens. It has two peristyles, divided by a wall to form the *cella* (see plan)*, the inner of which has a double order of columns—as

with the Parthenon—the uppermost of which is of very reduced height and separated from the lower by an architrave only, the frieze and cornice being

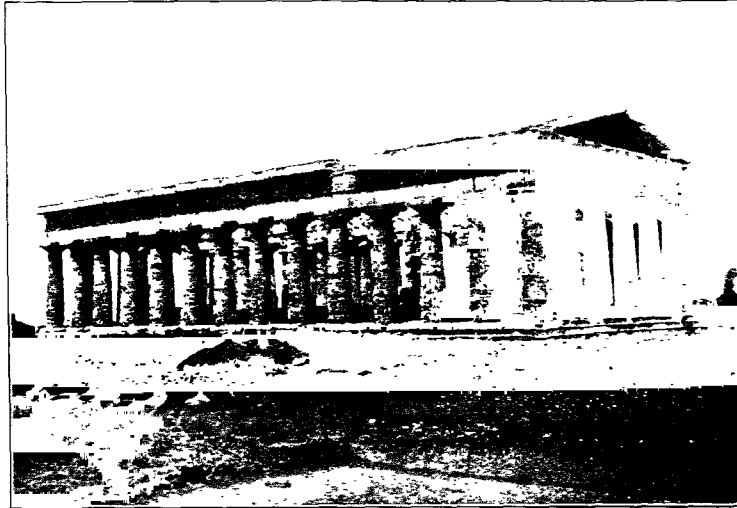


FIG. 6.—PÆSIUM: TEMPLE OF NEPTUNE.

omitted. The purpose of the double story would appear to have been to give support to the roof which covered the lateral peristyles, the centre



FIG. 7.—PÆSIUM: INTERIOR OF PERISTYLE, TEMPLE OF NEPTUNE.

* The plans here given are based on those given—with restorations—in the recently published and excellent work *Die Griechischen Tempel in Unteritalien und Sicilien*, by Robert Koldewey and Otto Puchstein.

division having apparently been open. The “*cella*” had a portico and entrance, probably at each end,

formed of two pillars and antæ, and the staircases indicated on the plan in the main cross wall appear to have given access to the roof and possibly some apartments over the vestibule. A noticeable peculiarity is the way in which the floor of the "cella" is raised above that of the rest of the temple,

2 inches and the apex of the pediment is 12 feet above the horizontal cornice. The three-step stylobate of the temple is rather more than four feet in total height.

The columns of the outer peristyle have twenty-four flutes, in which respect they appear to be unique as concerns this order. This increase in the number of flutings, from that usually employed, probably resulted from the application of an ancient rule of the Egyptians that the shorter the proportion of a column the more numerous should be its flutings. The usual practice of the Greeks is here seen in the spacing of the columns at the angles of the building more closely in order that the triglyphs might occur at the angle of the zophorus and the metopes still be of equal width.

The lower columns of the inner peristyle have twenty flutings, and are 19 feet 9 inches

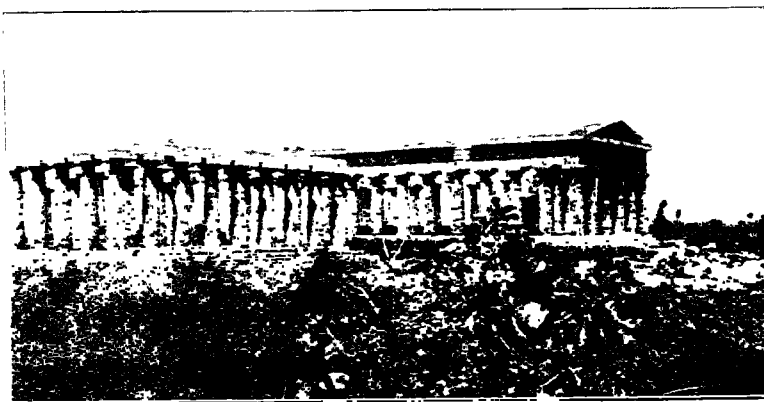


FIG. 8.—EXTERIOR OF TEMPLE OF NEPTUNE, FROM THE SOUTH-EAST.

amounting to nearly five feet, with two huge main steps in the position in which the side walls of the "cella" occurred (see fig. 7).

The columns of the exterior peristyle are about 6 feet 10½ inches in diameter and their total height 29 feet 11 inches, which gives them a proportion of about 4.83 diameters, or four diameters and a third. The diminution of the upper diameter of the columns is by rather more than one-fourth of the lower diameter. The diameter of the angle columns was increased by about a fiftieth part, according to the Vitruvian rule. The intercolumniation is about one diameter—as will be found to be the case with

high and 4 feet 8 inches in diameter; the upper range have sixteen flutes, and as regards their diameter are practically the raking line of the lower columns continued up—a rather interesting point to notice.

The stone of which this temple is constructed is very porous and rough in texture, but of a rich golden brown colour, which has an extraordinary and beautiful effect in a blazing sunlight and seen against the deep blue of the sky and sea. It would appear to be "a stalactite, formed by a calcareous deposit of water, of the same nature as the travertine with which St. Peter's and many of the modern buildings at Rome are constructed," and was most likely procured from the mountain Alburnus, east of the city. It is considered probable, however, that the stone was originally covered with plaster and coloured—evidences to indicate which have been found and even yet exist—and the character of the stone alone is sufficient to make the suggestion a reasonable one.

A French writer* has suggested a probability that this temple was at one time submerged in the sea, to support which theory he notes that the stonework of the building is visibly eaten away by the action of the corrosive salts of the water up to a level of two-thirds the height of the column shafts. He considers it possible that the same subterranean convulsion which caused the great eruption of Vesuvius in the year 79, and buried four towns, caused the city of Paestum to sink, half submerged, beneath the sea, to be later restored to its original level, as occurred with the ancient town of Puzzuolo. The idea is not an impossible one, though to the

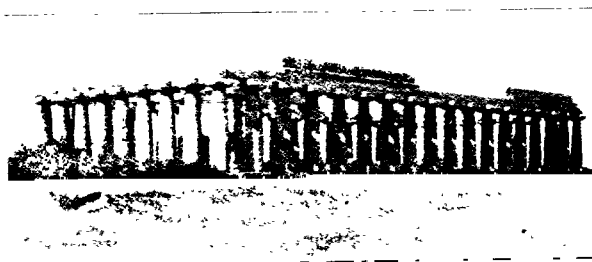


FIG. 9.—PEDIMENT, TEMPLE OF NEPTUNE.

the other two temples—an unusually close spacing even for the Doric Order.

The average height of the entablature is 12 feet

Photographs Nos. 6, 7, and 11 I owe to the kindness of my friend Mr. R. J. Pitcher, Mus. Bae. Dunelm., who accompanied me to Paestum.—F. R. H.

* The measurements of the temples and various other particulars quoted are from Wilkins's *Magnum Græciæ*.

* See Lesueur's *L'Architecture*.

ordinary observer there are now no obvious traces of such a catastrophe. Nevertheless the marshy land and malarial atmosphere which affect the dis-

also raised conjectures as to the use of the building, and caused it to be regarded by some as having had a civil rather than a religious purpose. Wilkins,

however, considered the building to have been a temple dedicated to two divinities (one to each aisle), which, he says, was not unusual with the Romans, under whose rule, as we have seen, this temple was probably built. Other authorities, too, take this view, and it seems, on the whole, quite the most likely explanation. It may be regarded as a departure from Greek practice, due to the vitiated taste of the period.

The columns of the outer peristyle are about 4 feet 10 inches and 3 feet 2 inches in lower and upper diameters respectively and 21 feet in height, and have twenty flutes. Their capitals are most peculiar in form, both as to the ovolo and necking. "The antæ of the pronaos, contrary to the uniform practice of the

Greeks, diminish in the same manner as the columns, and are crowned with a projecting cap of singular form." There is no complete portion of the entablature or suggestion of a pediment existing, as may be seen by reference to the photographs.

We now come to the Temple of Ceres, some dis-

trict may give some support to a theory of subterranean convulsion, and serve to explain the early and apparently complete abandonment of the city of Pæstum. In this connection, however, it should be said that the cause of the prevalent and dangerous malaria affecting the district is more commonly attributed to interruptions in the natural courses of the numerous local rivers, causing them to overflow the plains; the unwholesome vapours arise from the stagnant pools so formed.

We come now to the second of the temples, to the south of the great temple—the so-called Basilica. This is pseudo-dipteral, with nine columns at the ends and eighteen at the sides, and in extreme dimensions it is about 176 feet 9 inches long by 75 feet 3 inches in breadth. The central column of the fronts is probably unique in Grecian Doric temples, as also the range of columns down the centre of the cella, dividing it equally in two, and the three columns between the antæ of the pronaos, all of which result from and fall naturally into line with this remarkable spacing. The central range of columns was possibly merely a somewhat clumsy expedient to provide support for the roof: but it has

tance north of the great temple—the third and smallest of this group of buildings. This, like the Temple of Theseus at Athens, is hexastyle-

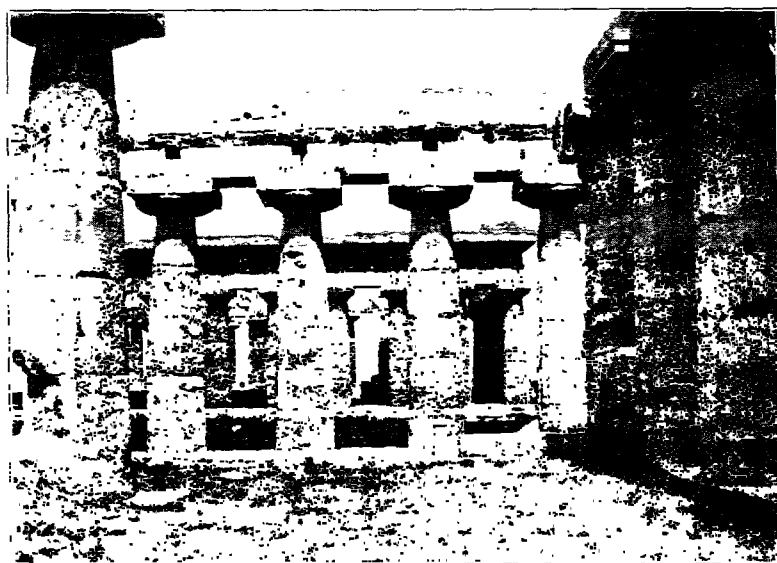


FIG. 10.—PÆSTUM. INTERIOR OF THE BASILICA, LOOKING TOWARDS TEMPLE OF NEPTUNE.

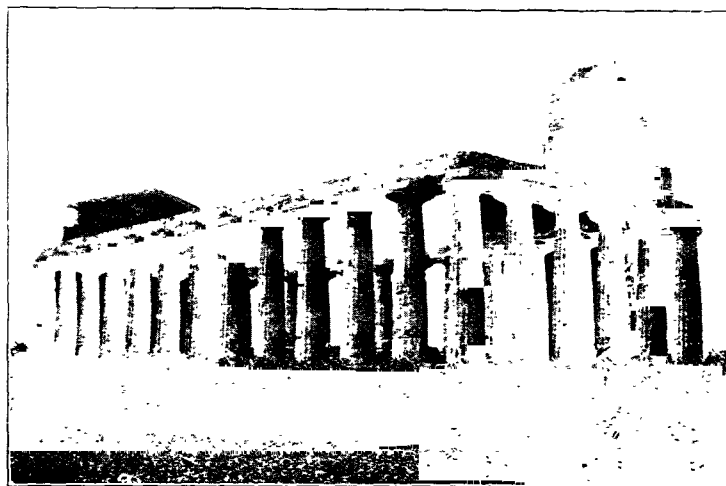


FIG. 11.—PÆSTUM: TEMPLE OF CERES.

peripteral, having six columns in the fronts and thirteen at the sides, counting those at the angles. The extreme length of the building is 107 feet 3 inches and its breadth 47 feet 8 inches, from which dimensions and a glance at the plans it will be seen how small this building is relatively to the two other temples. It is also in the most ruinous condition, and is, for that reason, the most obscure as to plan and arrangement, there being so little walling remaining. It is curious to note in all these temples how much better the columns have withstood destruction than the more solid walls—contrary to what one would expect to be the case. The temple seems, however, to have had an open vestibule and a cella. Instead of the walls of the cella being continued to form the sides of the pronaos, the latter is formed as a portico, open at the sides, or partially so, as well as the front: in fact, a Roman rather than a Grecian arrangement. There being no evidences of any approach to this temple from the western end, it is represented as closed on the restored plan.

The columns of the peri-style are 4 feet 3 inches in diameter and 20 feet 4 inches high, and they have twenty flutes. They are raised on a three-step stylobate, 3 feet 9 inches in height. The outline of the columns and the form of the capitals are generally similar to those of the Basilica, and exhibit the same evidences of decadence. Of the form of the entablature, which was 8 feet 2 inches in height, but little trace remains through the scaling or decay of the stone: but existing fragments show that the cornice was designed without mutules, while the grooves in the stonework of the frieze, which originally contained the triglyphs, show that the latter were set out on the Roman arrangement, with a half metope at the angle. Interesting and picturesque as this temple is, it plainly shows how far the taste of its designers had declined from the standard set by the Temple of Neptune.

The colour of the Temple of Ceres and the Basilica is greyer and distinctly less beautiful than that of the Great Temple, the stone having probably been obtained from another quarry.

Among the ruins have been found broken portions of cornices, sculptured metopes, triglyphs, and column shafts appertaining to the Doric Order, and in various places fallen heaps of other buildings, including what was possibly a circus, with carved remains of Corinthian pilasters. If excavations were made over the site by some responsible authority it is quite possible that very interesting results would be obtained.

Paintings taken from the tombs and other relics are deposited in the Museum at Naples.

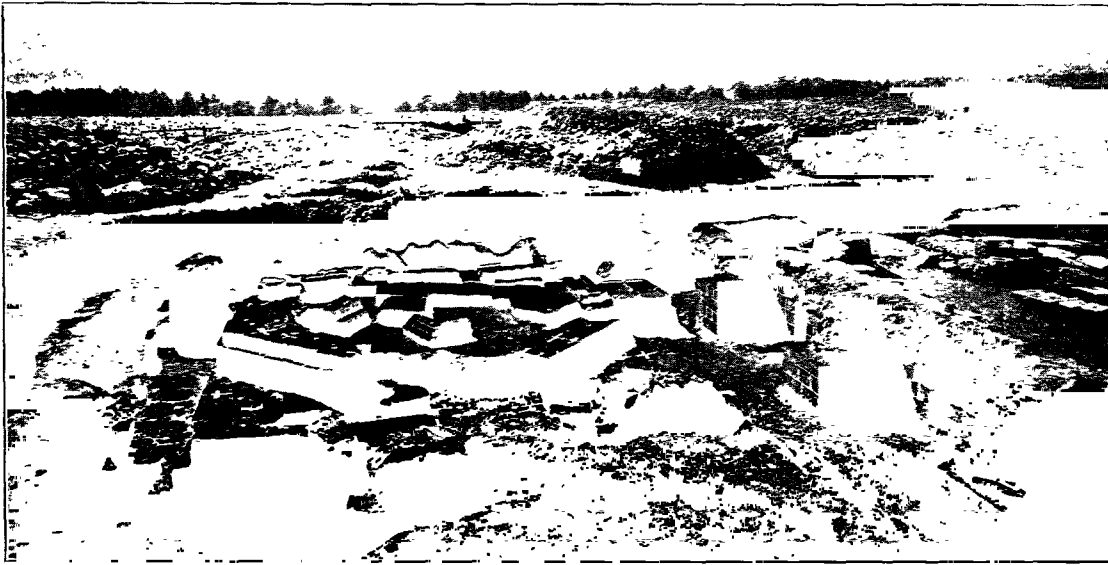
Even with such cursory examination as one is

able to make in a hasty visit the beauties of these ancient monuments are forcibly impressed upon the mind. Beautiful in proportion and colour, these temples gain also in effect by the impression of solitude produced by their situation and the associations of the chequered and melancholy history of the colony. We see here the Doric Order in all its simple majesty, lacking perhaps the grace, refinement, and finish of Athenian work; but nevertheless showing the characteristics of solidity, strength, and power in a manner which is perhaps of its kind unrivalled. For as Joseph Forsyth—whose discriminating taste and classical scholarship are well known—has truly said: "Surely a Phidias working in the metropolis of Grecian art, with its two best architects and the Pentelic quarry at his command, might well produce more elegance than contemporary or even later artists, who were confined to the ruder materials and tastes of a remote colony." The conjunction of these buildings with the sea, sky, and mountains, on the edge of an Italian bay of more than usual beauty, produce together an effect which is almost sublime. Here, too, once bloomed those roses and violets whose sweetness was so celebrated that Virgil, Propertius, Ovid, Ausonius, and Martial combined to praise them; yet even these seem to have passed away. The wild buffalo still wanders over its uncultivated but not unproductive plains, and occasionally the tinkling of ox-team bells breaks in upon the otherwise almost unbroken silence of the temples.

Neither the spoliation of marauding and warlike nations nor the destructive work of time and the elements has yet compassed the downfall of these buildings; and, shattered though they are, they look good for centuries still to come. Looking back on them one feels the contrast of their apparent indestructibility with the puny and perishable structures of more recent times. Such defiance of decay has its lesson for modern constructors.

We cannot better leave them than in the eloquent words of Forsyth: "Taking into view their immemorial antiquity, their astonishing preservation, their grandeur, their bold columnar elevation, at once massive and open; their severe simplicity of design, that simplicity in which art generally begins, and to which, after a thousand revolutions of ornament, it again returns—taking, I say, all into one view, I do not hesitate to call these the most impressive monuments that I ever beheld on earth."

N.B.—Fig. 2, while offering a good representation of the situation and general appearance of the city, is incorrect with regard to the drawing of the Basilica. A reference, however, to the plan of that temple will correct the error. —F. R. H.



CORSTOPITUM: PODIUM OF FOUNTAIN AND BUTTRESSES OF EAST GRANARY.

EXCAVATIONS AT CORSTOPITUM, NORTHUMBERLAND.

By W. H. KNOWLES, F.S.A. [*F.*], Hon. Sec. Corbridge Excavation Fund.

Read before the Northern Architectural Association, 13th January 1909.

DURING the first century of the Christian Era much had been accomplished by the Romans in Northumberland, in the formation of roads and fortresses. It is evident that the site of Corstopitum was then occupied, and it is possible that a fort was established there by Agricola. It was, however, not until probably the second century that the place became an important settlement, and its rise may be attributed to the period when Antoninus Pius was adding to the empire. During this conflict the barbarians were driven beyond the line of the Firth of Clyde, and at its termination the Romans constructed the turf rampart between the Clyde and Forth now known as the Antonine Wall.

Corstopitum is mentioned in the first Iter of the Antonine Itinerary as being twenty Roman miles south of Bremenium, apparently the northernmost point of the Roman occupation at the time when that treatise was compiled. It is also referred to by Camden when possibly there existed traces of some of the buildings. MacLauchlan in his *Survey of the Roman Wall*, 1857, gives an outline plan of the site, but it is not certain that any definite evidence then remained, excepting part of the south boundary, which is delineated with some claim to accuracy. Four years later Mr. Coulson conducted some investigations on the south side of the city, and examined what he assumed to be the core of the north abutment of the bridge, of which the south abutment and some piers are visible when the river is low. Such are the particular references that bear on the site. In addition there survives a considerable quantity of sculptured work and building material in the district which has been taken from the place and re-used, notably in Saxon times, in the lower part of the tower of Corbridge Church, and in the crypt of Wilfred's Abbey.

Further testimony of the importance of Corstopitum and of the culture and civilisation which prevailed is afforded in the famous Corbridge lanx, found in the Tyne in 1734.

It is a beautiful silver dish about 20 inches by 15 inches, with figures in low relief, and probably represents, according to the late Mr. Bates, the Judgment of Paris. Another silver dish was found, two years later, below Corbridge, and it is of particular interest inasmuch as it bore the sacred monogram of the Labarum. Doubtless also the silver vessels, decorated in low relief with mythological figures, discovered near Capheaton in 1747, formed part of the spoil from Corstopitum. Clearly the place had been occupied by a wealthy civil population and was not used entirely as an ordinary military fort, such as Cilurnum and Boreovicium; it was in fact a frontier town with massive and important buildings, its nearest rivals being York and Carlisle.

It will be readily recognised that an area which had already yielded the valuable relics mentioned above, which occupies a site in open fields and had never been systematically excavated, promised valuable and important results. Accordingly a representative committee was constituted, and a fund established, for the purpose of conducting over a number of years a systematic exploration of the site. The labours of the past two seasons, which are summarised below, have fully justified the work, and already considerable light has been shed on a variety of subjects connected with the Roman occupation of the district.

Corstopitum is less than three miles south of the Roman Wall. It is situated on a plateau on the north bank of the river Tyne, to the west of the village of Corbridge. The area on its south side now slopes gently to the Tyne, but was much steeper in Roman times, when it is probable the course of the river more closely followed the south-east rampart of the city. It is a pleasant, sunny locality, amid fertile soil, and commands picturesque views of the valley to the east and west. Corstopitum doubtless owes its position to the great north road, Dere or Watling Street, which here crossed the river and passed through, or to the west of, the town on its course between Eboracum and Bremenium. The outline of the town, as suggested on MacLauchlan's survey, encloses an area of about twenty-five acres, one-third that of York, and on the south side was found on examination to have been defended by a ditch and mound, in the core of which were some loose stones.

It will be convenient when describing the work if we pass from the south across the bridge, and observe the building near to it excavated during the season 1907, and afterwards those discovered to the north-east and somewhat in the middle of the town during the season 1908.

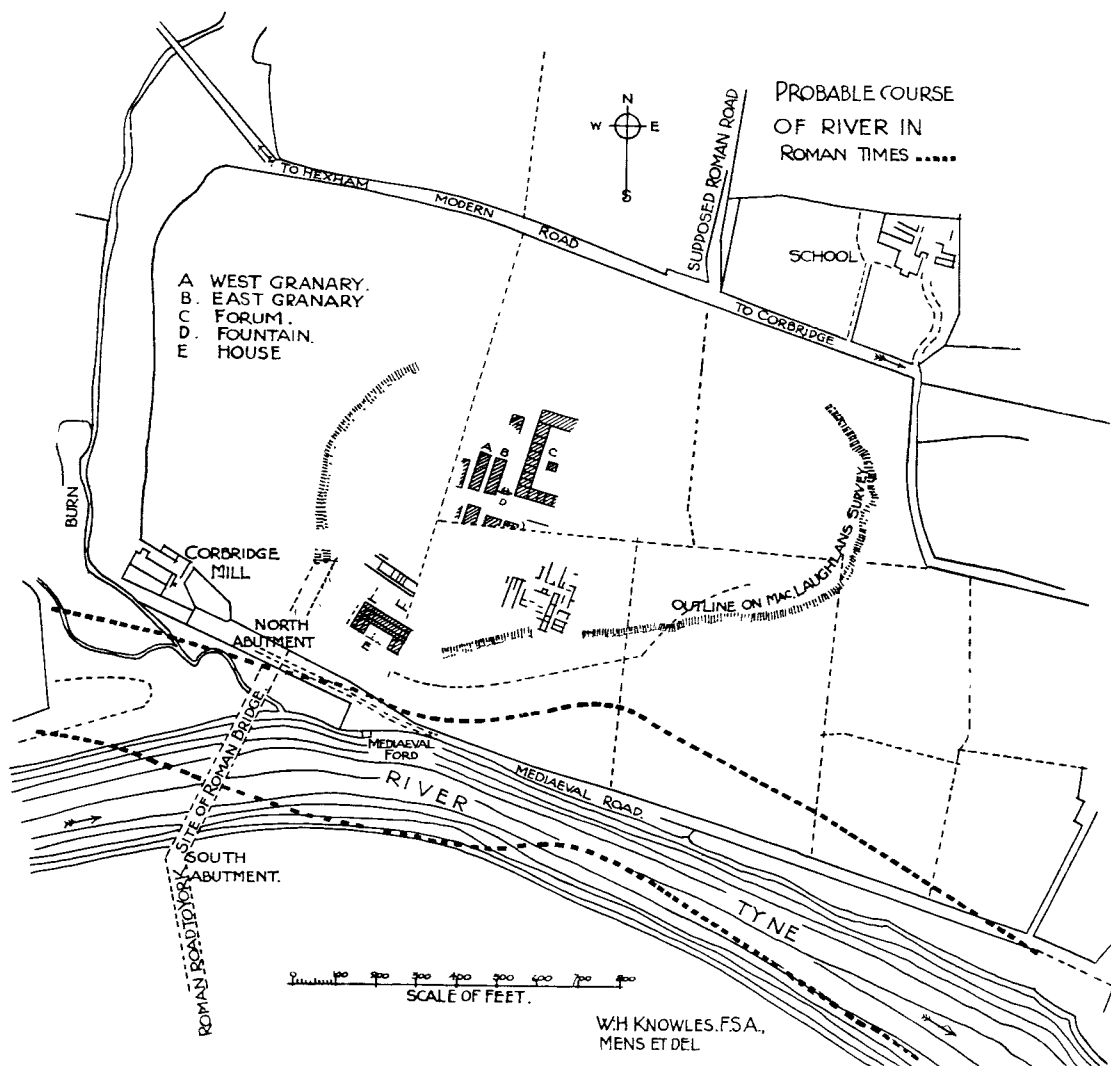
The direction of the bridge is not at right angles to the present course of the stream, but doubtless was so to the old course when the river flowed immediately below the city ditch, as suggested on the site plan. The total length of the bridge has been conjectured at 462 feet, and may have comprised eleven waterways divided by ten piers. The foundations of five of these are visible when the water is very low, and three courses of masonry of the south abutment exist as a square platform 36 feet 9 inches in length towards the river. The piers are flat-ended on the down stream side but have starlings on the upper side. At the level of the foundations they are 15 feet wide, and on the parallel faces are 21 feet 6 inches in length, and to the points of the starlings 29 feet 6 inches. The waterway at this level is 22 feet 4 inches, no voussoirs have been observed, and it is likely that the roadway was of timber construction.* The great length of the bridge must have given to it an imposing appearance. It is three times the length of the bridge to Cilurnum, which is of two dates, the piers of the later structure being almost identical in size and shape with those described.†

The roadway proceeding northwards from the bridge has been proven to the extent shown,

* See a plan by Mr. T. E. Forster, *Journal British Arch. Assoc.* New Series, vol. xii. p. 206.

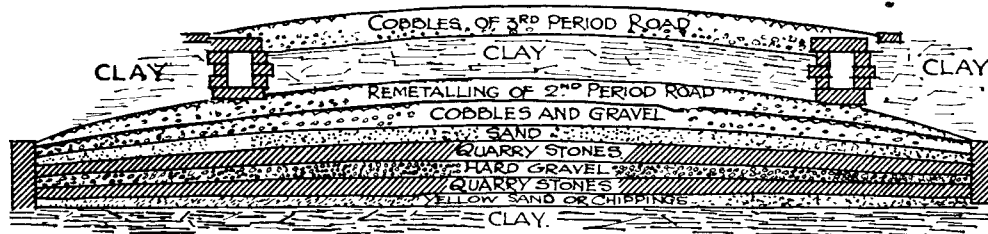
† See plan *Arch. Ael.* vol. i. p. 328, where the earlier bridge is attributed to Agricola and the later to Septimius

Severus (2). The piers of the Pons Aelii at Newcastle were pointed up and down stream; they measured on the parallel faces 20 feet, and to the point of the starlings 34 feet, and were 16 feet in width. *Arch. Ael.* vol. x. p. 6.



PLAN OF SITE.

PRESENT SURFACE.



SECTION OF ROAD.

10 5 0 10 FEET.

but whether it proceeded through, or past the west side of the city, has not yet been determined. A section made near to the supposed site of the north abutment indicated that the road had been twice raised. The surface of the earliest period is 6 feet below the present level, and inclusive of the kerb stones is 37 feet in width. The method of construction comprised a stratum of quarry chippings over the clay subsoil, on which was bedded a course of stone penning 9 inches thick, covered by a layer of hard gravel and then a second course of stone penning; next came a layer of sand, and finally laid with a good camber the surface material, 12 inches thick, formed of cobble stones and gravel well and firmly beaten down. The kerb stones enclosing the road were 9 inches thick, 31 inches high and 3 to 4 feet in length, dressed in rustic fashion. The second-period road was but slightly raised above the original level, and may indeed represent repairs merely, but that of the third period was 3 feet above the first. It was much narrower—27 feet—was enclosed by a 9 inches \times 3 inches kerb laid flat, and within and below the last was a drain with a flagged bottom and cover supported on slight side walls. In point of workmanship the earliest work was superior to the latest.

On climbing the steep ascent of the road just described we have on our right, approached by narrow streets at right angles to the main road, a large house measuring 132 feet from east to west. It has been many times altered and enlarged, and in its last stage comprised a single row of apartments between corridors, returned at either end to the south. A cobbled terrace passes along the south side, and projecting from it is a mass of masonry, possibly the foundations of some arbour which commanded the bridge and afforded extensive views of the valley of the Tyne and the surrounding country. On the north side the house is enclosed by a large courtyard. The walls are much denuded, only a portion of them exists to the height of the ground floor level. The

various apartments, with one exception, are small in size: they are 14 feet 6 inches in length and less in width. The corridors are about 7 feet wide. The walls, on a footing of clay and cobbles, are of stone, averaging 2 feet 3 inches thick, occasionally laid in courses and in places built of re-used material. The floors, generally of two levels, are of opus signinum with a quarter-round angle fillet; there is no indication of tessellated work, indeed this is rare north of York. Some of the rooms were warmed by hypocausts, two or three at the west end being of a composite character, but the hypocausts below the corridors were formed with pilæ of stone and tile as seen in the photograph. The chamber at the south-east angle was warmed with jacketed wall tiles, communicating on the sides and secured with iron T-clamps, and its walls were decorated in colours of simple pattern, which had several times been renewed, on each occasion over a thin



SOUTH CORRIDOR, LOOKING EAST.

coating of fine plaster. The south corridor was divided midway in its length by a door, the threshold of which, grooved for the jamb stones and holed for the door pivots, is still *in situ*.



THE LION AND STAG.

There are some socketed stones at the west end of the north corridor and in the adjoining room. The drains from the higher ground converge and pass in trough form round the adjacent latrines. The three enclosed spaces on the south side appear to be open courtyards, in the centre one of which several drains discharge into a tank lined with opus signinum. The courtyard on the north was paved with cobbles and contained an ornamental cistern, 12 feet by 8 feet, finished on the sides with a moulded stone coping, and further enclosed by an opus signinum border. In it was found the lion and stag, which stands about 3 feet in height and is worked upon part of a moulded coping. In contrast to the stereotyped figures of deities frequently found, the group, though lacking in technique and rude in workmanship, is original and vigorous in its treatment and of distinct importance as an example of free sculpture of the period. (There is a similarly sculptured stone, from a bastion of London Wall, in the Guildhall Museum.) The back of the lion's mouth is holed for a pipe, and it is clear that the lion served as a fountain, the water spurring from its mouth into a vase, or other object, placed in the cistern.

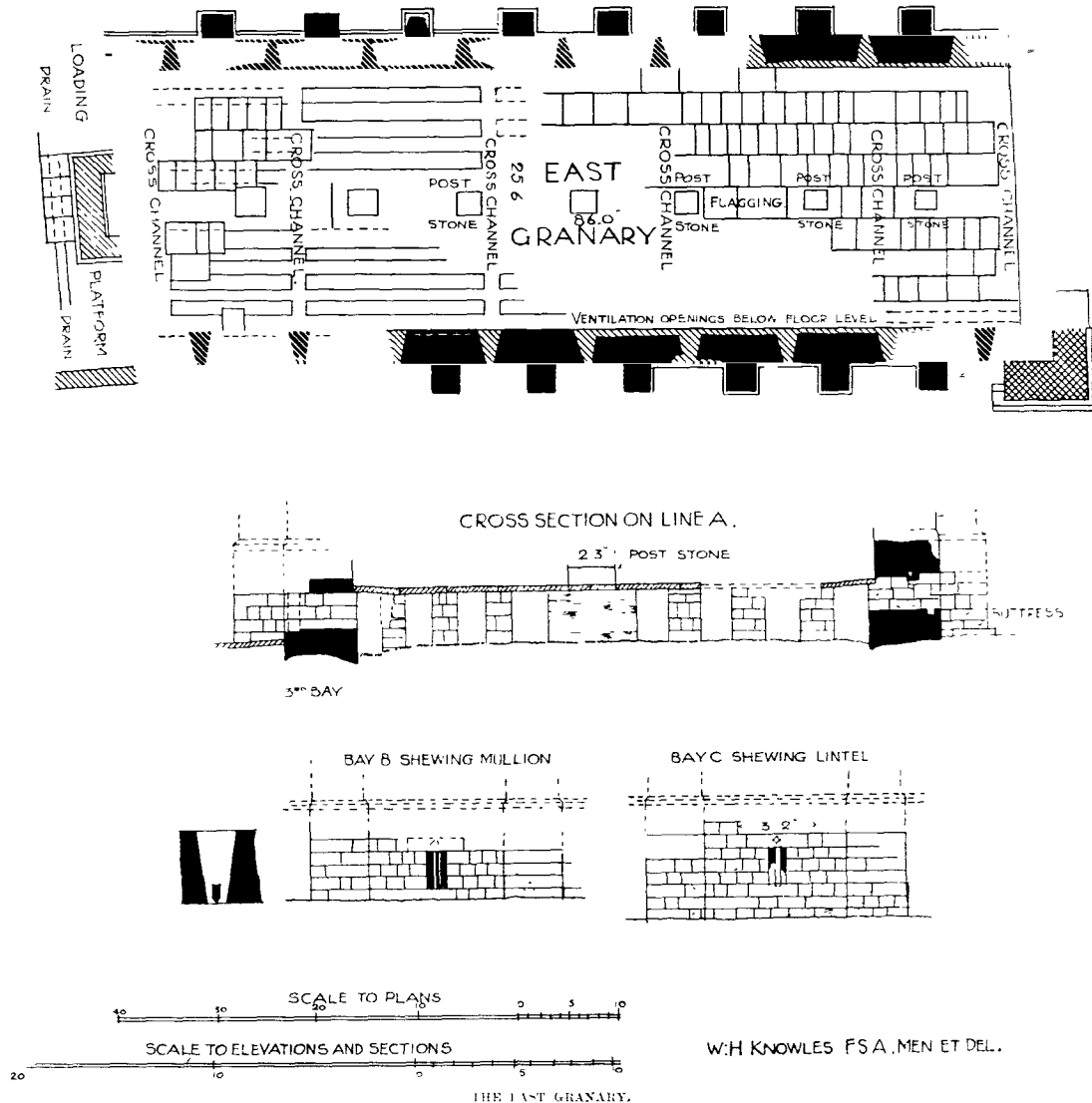
A series of chambers enclose the courtyard, and on the west and north are built into the bank side and have a thick retaining wall to the same; on the south side of the north range is a verandah, in front of which are several holed stones to receive upright posts. In the westernmost chamber were found a quantity of bones, pottery, and ironwork.



In the area to the north of the last site there was found a number of rubbish pits, and yet farther north, and on the plateau in the adjoining field, is a broad street at right angles to that proceeding from the bridge; it is also of three periods, with drains and channel stones at corresponding levels. As quite a number of massive and important buildings open upon this thoroughfare it would appear to occupy a position somewhat in the centre of the city. On the north side are two extensive granaries, a fountain, and a building of considerable dimensions, possibly the forum, market-place, or stores. On the south side the street is

bordered by a number of buildings apparently used for business purposes, among the foundations of which are several walls of exceptional thickness, with chamfered plinths, necessitating, however, further investigations on the contiguous site before their use can be determined. One of

the small blocks had clearly served as a pottery shop or store, the objects being discovered, under a mass of burnt stuff, as they had fallen from the shelves in separate heaps, including specimens of Samian, Durobrivian and British made wares, some of which were considered to be made from local clay. A number of coins were also found, the majority ranging between 333 and 340, thus fixing an approximate date for the destruction of the store, although it is a date much later than that usually assigned to the manufacture of Samian ware.



The work described to this point represents the labours of the season 1907; that of the season 1908 comprised the area to the north of the road and approximating in plan to a number of irregular insulae. The two granaries occupy one of these at the west end of the road. They are of substantial and damp-proof construction, and are larger, but similar in many respects to those found in Roman camps, where, however, they usually occur singly and not in the double form adopted at Corstopitum, South Shields, and Boreovicium. That these

buildings were used as store places for grain is demonstrated by the recent discovery of wheat at Ribchester and elsewhere.

The west granary was first erected. It measures on the interior 92 feet 6 inches by 23 feet 6 inches, and is enclosed by massive walls averaging 36 inches in thickness, strengthened on three sides by stout buttresses 36 inches on the face and 11 feet 10 inches from centre to centre. The south end towards the road is occupied by the entrance-door and loading platform. The walling is of rubble concrete faced on both sides with good ashlar masonry, in courses 6 to 8 inches high and 8 to 10 inches on the face. The floor, with the object of keeping the



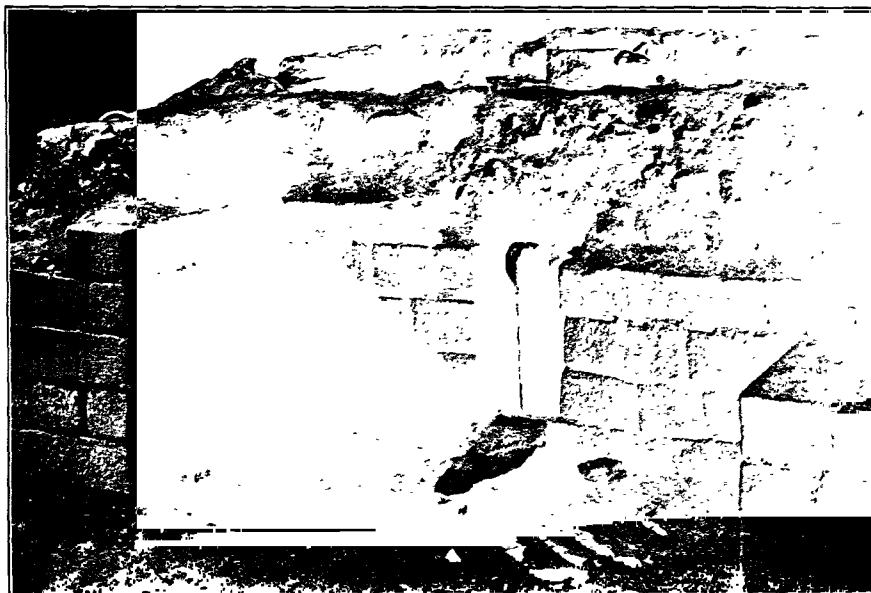
EAST GRANARY FROM THE S.E.

goods stored thereon free from damp, was constructed about 2 feet 4 inches above the ground level and was formed of flags 4 inches in thickness, carried on seven parallel dwarf walls placed longitudinally, the channels formed between them being supplied with an effective current of fresh air by cross channels placed opposite to the ventilating openings in the outer walls between the buttresses. At a subsequent date these channels were filled with large cobbles and a second floor erected thereon, but in this case the floor was carried by six longitudinal walls, the flags as before spanning the intervening space and being supported on a scarsement or offset provided for the purpose on the main wall. The ventilation openings in the outer walls were altered to suit the levels; as these exist in a more perfect state of preservation in the east granary they are described below. Within the door, at the south end of the granary, are some descending steps 10 feet 6 inches wide, which may have been temporarily introduced before the floor was raised to the

same level as that of the east granary (which has only one floor), an alteration probably made because it was found more convenient that the floors of both buildings should be at the same height. Without the door is a mass of masonry, presumably a loading platform.

The East Granary.—On the interior this measures 86 feet by 25 feet 6 inches, being thus shorter but wider than its neighbour. It was divided down the middle by a series of pillars, the base stones for which remain. The walls exist at a greater elevation, and in a more complete condition than in the west granary. They are similar in construction, excepting that the east and the west walls are 3 feet 6 inches thick and the buttresses are nearer together. The floor is supported by eight dwarf walls with longitudinal and transverse channels fed with fresh

air from openings placed between each buttress. These openings are 2 feet in height and 10 to 12 inches wide on the exterior, with widely splayed jambs to the interior; they are divided by a chamfered mullion 5 inches on the face let into sinkings in both sill and lintel. The mullion is a very unusual, if not unique feature in Romano-British work. A few lengths of a chamfered plinth occur *in situ* at the north-east angle of the building; it is of larger section than fragments of similar mouldings found in the west granary. The occurrence of a row of piers down the centre of the building is uncommon. Whether they were carried up in stone or wood does not appear, excepting that there is no apparent preparation for wooden posts on the existing stone courses. By the provision of these piers the span was reduced to 12 feet, and if constructed of stone they would be sufficiently strong to support a barrel-vault, but, as there is no evidence of arch stones or tile slabs to suggest such a means of covering the area, it may be that the pillars indicate the existence of an upper story or some form of loft or storage in the roof space. When the level of the road on the east side of the granary was raised, it was not carried to the building, but made of less width and finished with a sloped embankment some distance away, apparently with the object of leaving open the ventilation below the floor level of the granary.



MULLION IN EAST GRANARY.

The Fountain.

Adjoining the east

granary is a structure with a frontage of 19 feet to the street, and, measuring from north to south, 13 feet 6 inches: it is six-sided on plan, two, the east and west, being about 8 feet, and the north and canted sides about 7 feet 6 inches in length. The floor is 2 feet above the exterior pavement, which is on the same plane as the earliest street. On either side the structure is flanked by a square pedestal, and in front is a large trough or cistern.

The lowest course of ashlar, where it abuts on the south against the cistern, is a thin one and is chamfered on its top edge on the west side: above it is a broad stone of irregular width which supports a square plinth, over which is a moulded and grooved base course. On the south the plinth is sunk, having a fillet on both edges to receive the moulded base, and on the east and west sides a single fillet where the stones vary in size. The fillet is worked with projections on the external angles of the podium, and on the south for two intermediate pilasters.

The base is moulded to the outside, and sunk or grooved on the top to receive the stone panels, single only to the east and west, and three in number on the south, divided by pilasters ten and a half inches wide. It is evident that, on at least three sides, there existed a low, solid

The floor was formed of large slabs of stone, six inches thick, laid on a bed of clay and cobbles finished on the top with a rough covering of opus signinum. The dovetailed sinkings were apparently run with cement only, there being no evidence of iron cramps in the undisturbed lower courses.

The masonry exhibited some unusual features. (A) In the moulded base, where it worked round the projecting pilasters, the stones are mitred, after the manner of joiners' work, instead of, as in good masonry, being wrought on a stone on which the mouldings continued beyond



WEST SIDE OF FORUM (?)

the mitres; (B) a chamfered course passes along the west side only; (C) the plinth stones are carelessly grooved to receive the end stones of the cistern; (D) the ashlar below the plinth is dressed where it was hidden by the cistern.

The pedestal stones which flanked the building are 2 feet 5 inches square by 3 feet 6 inches in height, and rested on a chamfered base which is sunk to receive them.

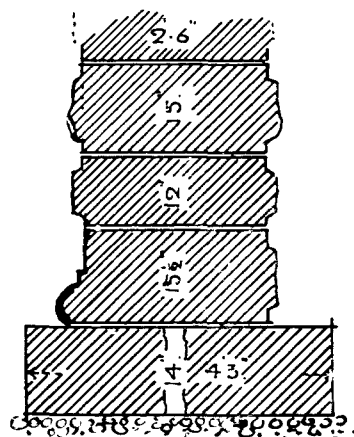
The trough or cistern which stands in front of the building measures, on the inside, 15 feet 5 inches by 5 feet 9 inches, and is 2 feet in height. The ends of the trough are constructed of single stones 7 feet in length. The sides consist of three stones, each 5 feet

long, grooved on the edge and joined by cement, excepting where the side stones are grooved into the ends, which in turn were strengthened by being carried into grooves worked on the lower courses of the building (see plan). The two small and thinner slabs at the south-east corner occupy the position of a single original stone. The top of the upright slabs of the front and one end are irregularly scalloped, and appear to have been worn by the passing of water vessels over them. The north side of the cistern was cramped to the ashlar course below the plinth of the building. The bottom is paved with large flat stones, grooved to receive the upright slabs and sunk to form a channel, which, falling into an outlet at the south-west corner, communicates with a drain on the exterior, where also were some broken tiles resembling water pipes. The source of the water supply has not been discovered, but it may be assumed that water issued from a mask or other feature in the middle of each panel above the cistern.



The fourth building is situated east of the fountain. Being of exceptional dimensions and built of excellent masonry, it may rival in size and character any building erected by the Romans in England. The structure seems to be that of a forum, market place or large stores; it comprises a number of apartments arranged about a quadrangle. The west range of this was completely excavated, but a portion only of the north and south ranges. On the exterior the west wall, without apparent door opening, extends from south to north 221 feet. On the interior the quadrangle in the same direction measures 168 feet. The north and south exterior walls were traced to the extent of 100 feet, but until the completion of the investigations it is not possible to say whether the space enclosed is square or oblong. The various chambers average 20 feet by 17; they are divided by walls at right angles to the exterior and are returned a short distance on either side towards the quadrangle in the shape of the letter "T." The space between each "T" piece is 13 feet, and is the only opening into the chamber. There is no indication of or any provision for the attachment of doors or windows.

Clay and cobble footings underlie the walls, which, on the west side, rest on a broad stone foundation 4 feet 3 inches wide by 14 inches in height; over it is a course with a bold torus moulding to the exterior and above the walling, 2 feet 6 inches in thickness, every stone of which is the full thickness of the wall, in courses 12 to 15 inches high, dressed on both faces in heavy rustic fashion within a chiselled margin. The cross walls, 24 inches thick, are similarly dressed on both faces, and here again every stone spans the full width of the wall.



SECTION OF WALL.



Floors occur at two, if not three, levels; the lowest is composed of crushed chippings and fine gravel with occasionally a small admixture of lime; the upper floor, 2 feet higher, is of flags bedded on small cobbles. In the south range are some floors of opus signinum. A considerable number of arch stones were strewn about; on both faces they had a square fillet and rough sinking and had been plastered over; they belong to an arch of 13 feet span, identical with the width of the openings into the various courts. Unfortunately the voussoirs are only 18 inches on the soffit, whereas the jambs of the openings are 30 inches; it is, therefore, impossible that they should have occupied the position indicated.

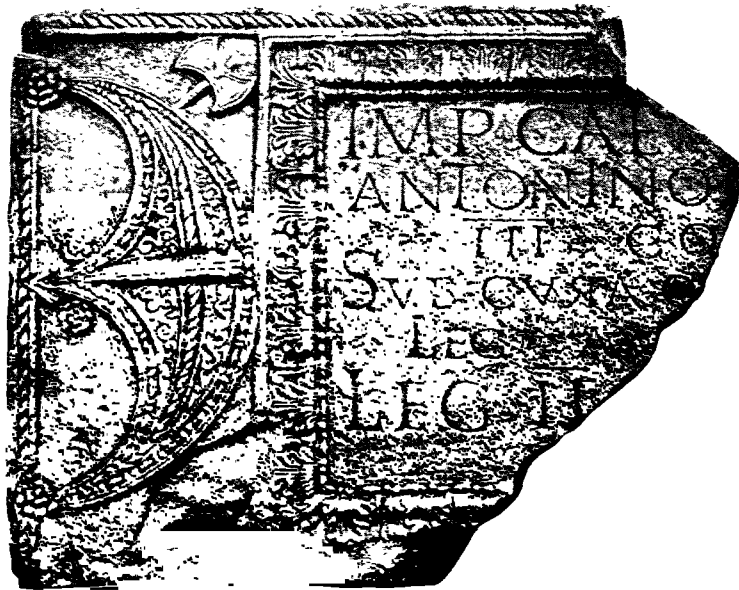
Within the area of the quadrangle are the remains of rubble walls, several of them enclosing shallow, trough-like structures of poor masonry; but two parallel walls, 19 feet apart, set in strong cement, appear contemporary with or earlier than the massive walls of the main building. These walls have had embedded in their thickness wooden uprights, placed quite near to the inner face of the walls, but protected by a thick layer of wall plaster, which is stained a yellow colour. The floor space between the walls has been cemented and has a fall to the south. It is not yet possible to demonstrate whether the whole of this work may have been used for some simple trade, needing troughs or washing-places. Two series of post-holes occur on the east side of the centre rectangular area: they penetrate the sandy sub-soil about 2 feet. An iron pole shoe and several querns were among the minor finds, whilst in one of the courts were a number of stone ballista shot. The area also produced two Anglo-Saxon fibulæ and some coloured beads.

Other buildings to the north and west of the granaries were disclosed, quite near to the surface, but were covered up again, the walls being of poor construction. The gold hoard was discovered in a building north of the east granary.

Sculptured Stones.—Some striking and interesting pieces of sculptured work have been found. They include a portion of a large dedicatory panel found in the east granary. It is 2 feet 10 inches in height, and the inscription, according to Professor Haverfield, may be intended to read:—

IMP ♣ CAES. T. AEL. *Hadriano*
 ANTONINO. *Aug. pio trib. pot.*
 III ♣ *COs iii p.p.*
 SUB CURA ♣ *Q Lolli Urbici*
 LEG ♣ *Aug. pro praetore*
 LEG ♣ *II. Aug.*

The lettering is enclosed within a carved acanthus border, and at either end was flanked by an amazon's shield with a spear-head and axes. Three figure subjects also in panel form were



INSCRIBED PANEL, 2' 8" HIGH.

discovered: (1) A stone about 21 inches square, bearing in relief the head of a sun god enclosed by a rayed nimbus, and holding above the left shoulder a whip: the general arrangement is suggestive of late fourth-century work. (2) Three fragments of a long panel, 21 inches in height, comprising in bas-relief a temple, within which is the figure of a man holding a horse, and without a mounted draped figure on a winged bridled and plumed horse. The rider wears a radiated crown. Whether the rider may be assumed to be Bellerophon and his horse Pegasus, or, as some think, Helios, the sun, is open to discussion. The figure standing within the temple is draped, in his right hand is a staff, and with the left he holds an un-winged horse, possibly early third century (?). (3) A stone about 24 inches square, depicting a partially draped male figure standing by the side of a horse. Among the debris near the entrance to the west granary was an altar in two pieces, 4 feet 6 inches in height: it bore on the lower part a portion of an inscription, sufficient to indicate its probable expansion to be "... praepositus curam agens horrei tempore expeditionis felicissime Brittaunicae." The



SOLITARY STONE LANT

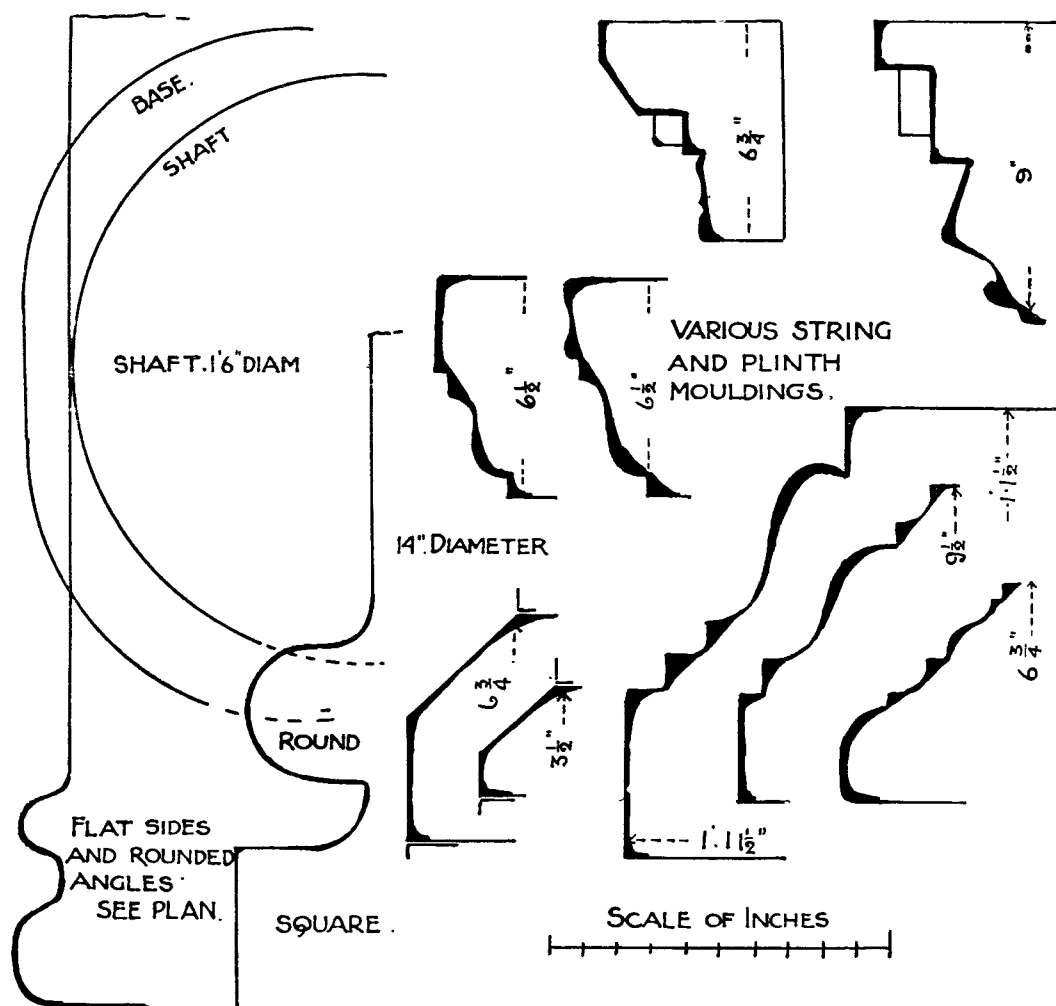
epithet "felicissime" may possibly refer to Septimius Severus at the time of his attacks on the Britons, A.D. 208-210, with which date the style of lettering agrees.

Many fragments of cornices and string mouldings, varieties of Corinthian and Ionic capitals, moulded Attic and other bases indicating shafts up to twenty-one inches in diameter are to be numbered among the discoveries. Unfortunately none were found *in situ*, nor can their original position be determined. One of the capitals was worked over a shaft 18 inches in diameter, which indicates, with its complementary cornices or pediment, a building with a façade about 20 feet in height. The workmanship is comparable with the average finds on Romano-British sites, and of sufficient merit to prove that the objects are the work of trained artificers.

The minor finds comprise part of the cheek piece of a helmet, many fibulae in bronze and enamel, rings, keys, a stylus, tweezers, weapons, and implements in iron, including a wheel skid, and pole shoe, and a number of caltrops. Samian ware abounds: it is largely decorated and very varied in shape. Some of it can be dated to the first century. The makers' names will afford considerable assistance to those who are engaged in the special study of pottery, its dates and classification. There are also some good specimens of Castor ware.

Of the noteworthy finds the most remarkable is that of the hoard of gold coins, forty-eight

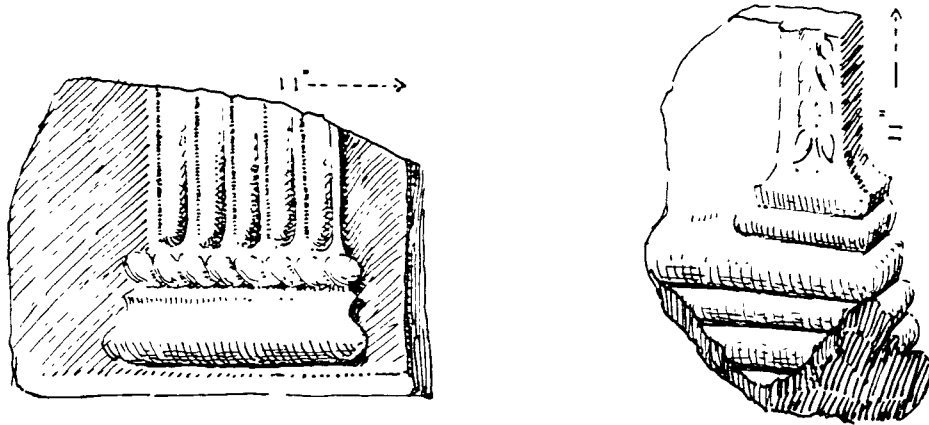
in number, enclosed, together with a gold ring, in a piece of lead and secreted eighteen inches below the present ground level in a building of late date. The coins include examples of the reigns of Valentinian I. (4), Valens (2), Gratian (16), Valentinian II. (8), Theodosius (5), and Magnus Maximus (13). According to Mr. H. H. E. Craster, M.A., they may be ranged between the inclusive dates 370-385. They chiefly bear on the reverse the usual "Restitutor Reipublicæ" and "Victoria Augg." types. Although inferior to the issues of the early empire they are artistically superior to the silver coinage of the period. The coins are all in an excellent state of preservation and weigh about sixty-five grains each, which is below the standard (70·22 grains)



required by the edict of Constantine the Great in 312. Of the number, forty-three were minted at Trier, two at Rome, and one at Constantinople; Lyons and London were not represented. Excepting a find made in 1811 at Cleeve, near Cheltenham, the Corbridge hoard is the largest find of Roman gold coins made in Britain. Coins dating from the first century have been discovered. The granaries produced a number for the period A.D. 200-380 (Septimius Severus to Gratian), and three hoards of burnt bronze coins previous to A.D. 340 have been found. There is a noticeable absence of examples between 196-253 and 340-364.

The opinion previously expressed that Corstopitum was not an ordinary fortress, but rather

a town penetrated by military elements, has been confirmed. The two granaries of exceptional size are distinctly military features, as is no doubt the large, massive building to the east of them. These appear rather to have been intruded on the city, thereby converting the place into a large depot, an office that it probably continued to fill from the time when Antoninus Pius made his advances northward until Septimus Severus similarly conducted expeditions against the Caledonians. The site was undoubtedly occupied during the first century, and it had become of



some importance in the second century, when the dedicatory slab of Antoninus Pius was erected. The presence in the granaries of several coins of later date than A.D. 200 suggests that these buildings were used later on for other purposes than the storage of grain. The repeated finds of burnt coins up to A.D. 340, and scarcity for a period thereafter, denote a certain destruction by fire, whilst the absence of coins after about A.D. 385 indicates within a few years the period when the city was abandoned. It is of course not possible to assign dates to the periods when the various roads and floor levels were constructed, but all these discoveries afford evidence to be carefully noted in elucidating the history of the Roman occupation of Northern Britain.

The Committee are greatly indebted to Mr. R. H. Forster for his continuous oversight of the work during the period of excavation, and to Prof. Haverfield and Mr. H. H. E. Craster for their keen interest and assistance. It is a pleasure to observe that the classical reviews consider that the work at Corstopitum must "take first rank," and that it is "likely to prove one of the most interesting if not important sites in Roman Britain."



PART OF THE GOLD BOARD.

ARTISTIC COPYRIGHT AS AFFECTING ARCHITECTS.

THE REVISED CONVENTION OF BERNE.—PROPOSED INCLUSION OF WORKS OF ARCHITECTURE IN THE PROTECTIVE CLAUSES OF THE COPYRIGHT ACT.—STATEMENTS PREPARED FOR THE PARLIAMENTARY COMMITTEE BY THE R.I.B.A. REPRESENTATIVES.

THE Committee of the House of Commons appointed to examine and report upon the changes proposed in the law of Artistic Copyright, in order that, if the Legislature see fit, such law may be brought into conformity with the Revised Convention of Berne signed at Berlin last November [JOURNAL, 6th March, p. 318] has been recently holding its sittings. The Institute Council, having been invited to give evidence on the question as it affected architects, appointed Mr. John Belcher, R.A., *Past President*, and Mr. John W. Simpson, *Vice-President*, to represent them. With a view to strengthening the position of the Institute representatives, a circular letter was addressed to members of the General Body on 6th April last, setting forth the claims of architects to protection under the Copyright law, and inviting members who had had reason to complain of the unauthorised reproduction of their drawings, or of their executed work, whether as regards plan-arrangement, elevation, or otherwise, to communicate brief particulars to the Secretary R.I.B.A. Expressions of opinion from the Councils of Allied Societies were also invited, together with any observations upon the desirability of architects retaining the copyright of their drawings compulsorily deposited with local authorities in connection with architectural work carried out by such authorities. Extracts prepared by Mr. Simpson from the Blue Book of the Berlin Diplomatic Conference were subsequently sent to the Councils of the Allied Societies, with a further communication pointing out that the protection which would be obtained if the Revised Convention were ratified by the British Legislature afforded the only practical means of securing to architects the ownership of the drawings and documents from which their buildings were erected, and would bestow upon them in addition certain privileges which they did not at present possess. Expressions of approval of the effort being made to secure legal protection for architectural works were unanimous from the governing bodies of the Allied Societies, and letters from architects in all parts of the country were received giving instances of injury they had sustained through lack of such legal protection. Some of these letters will be found summarised in the footnote to § 19 of Mr. Simpson's evidence. Notes of some legal decisions in Continental countries where the law already affords protection to the author of architectural work are given in the Appendix to § 26, p. 531. The Institute representatives gave evidence before the Copyright Committee on the 24th ult. Mr. Simpson was under examination some two hours, and was followed by Mr. Belcher. Subjoined are the statements

prepared by them respectively, printed copies of which were furnished for the use of the Copyright Committee.

I.

STATEMENT PREPARED FOR THE COMMITTEE BY MR. JOHN W. SIMPSON, *Vice-President*.

I am a practising architect, Vice-President of the Royal Institute of British Architects, Architect to the Honourable Society of Lincoln's Inn, Architect to the Royal Society of Painters in Water-colours, British Secretary of the Bureau of the "Comité Permanent International des Architectes."* I have been appointed (with Mr. Belcher, R.A.) by the Council to represent the Royal Institute of British Architects before this Committee.†

I.—The Reasons for according to Architectural Work similar Protection to that given to Sculpture.

1. The place of Architecture among the Fine Arts is incontestable‡ and the conditions of its

* This body comprises ninety-seven members, representing eighteen adherent countries, *i.e.* Germany, Austria, Belgium, Canada, Denmark, Spain, United States, France, Great Britain, Hungary, Italy, Mexico, Holland, Portugal, Russia, Sweden, Switzerland, and Turkey.

The British members are: John Belcher, R.A. (*Vice President Perm. Com.*); John W. Simpson [*F.*] (*Secretary Perm. Com.*); Professor Atchison, R.A.; Phénix Spiers [*F.*]; T. E. Colclutt [*F.*]; Alex. Graham, Hon. Sec. R.I.B.A.; H. T. Hare [*F.*]; John Slater [*F.*]; Leonard Stokes [*F.*]; Sir Aston Webb, R.A. [*F.*]; Ian MacAlister, Sec. R.I.B.A.

† The *subscribing* membership of the Royal Institute is 2,278, consisting of 2,232 practising architects and 46 Honorary Associates. The *total* membership of the Royal Institute and its Allied Societies is as follows:—

Fellows	888
Associates	1,344
Honorary Fellows	8
Honorary Associates	46
Honorary Corresponding Members	76
Members of Allied Societies not being Fellows or Associates R.I.B.A.	1,264
Total	3,626

The Royal Institute has also on its Register 2,293 *Probationers* who have passed the First (Preliminary) Examination, and 961 *Students* who have proceeded to and passed the Second (Intermediate) Examination but are not yet fully qualified for membership.

‡ "Each Art has its own vehicle of expression. . . . Architecture, sculpture, painting, music, poetry, meet upon the common ground of spiritualised experience. . . . The works of art produced by the architect, sculptor, painter, musician, poet, emanate from the spiritual nature of the race, are coloured by the spiritual nature of the men who make them, and express what is spiritual in humanity under concrete forms invented for them by the artist."

practical exercise are closely analogous to those of the Art of Sculpture. The four Arts of Design ("Les Quat' Arts") have always been closely allied. In France their pupils are trained in the same school, and the most brilliant of them go together to Rome, to complete their studies at the Villa Medici. It is most desirable for their mutual encouragement in this country that they should be recognised as entitled to the same protection by the law.

2. A sculptor about to materialise his ideas for a statue proceeds to formulate them by means of sketches either in clay or on paper to a small scale, correcting these and eventually developing them into finished and detailed models in clay and plaster.

3. In like manner the architect realises his ideas by means of sketches and, occasionally, models, eventually developing them from small scale drawings (generally of $\frac{1}{4}$ inch to a foot) to working drawings of double that size ($\frac{1}{2}$ inch) showing the *Plans* or general disposition of his building, the *Elevations* of external façades, the *Sections* showing the constructional methods to be employed, and the appearance of the interior. These drawings are again restudied to a larger scale, generally $\frac{1}{2}$ inch to the foot, to determine the precise relationship and values of the various *Details*; and, finally, all the more intricate portions, such as the mouldings and forms of masonry, metal-work, joinery, plaster-work, and other matters in which precision and delicacy are required to obtain a satisfactory result, are drawn to the actual size of execution.

4. The sculptor, having completed his studies and models, has a block of marble prepared for him by workmen, and supervises its shaping and modelling to the form required, adding himself the finishing touches; or, alternatively, hands the plaster model over to the foundry to reproduce for him in bronze.

5. In like manner the architect hands over to the workmen his studies and directions, and personally supervises their reproduction in the various materials specified. The *original conception* in both instances is comprised in the designs of which the statue, or the building, is a reproduction.

6. Respect for property is a principle of law common to all European civilisations; theft is punished by all legislations. The rights of the *author* of intellectual property, whether literary or artistic, are also fully recognised, and the architect's position as an "author" has been established from remote antiquity.*

The geometrical proportions which the architect observes contain the element of beauty, and powerfully influence the soul."

"The fact . . . that architecture, more almost than any art, connects itself indissolubly with the life, the character, the moral being of a nation and an epoch proves that we are justified in bringing it beneath our general definition of the Arts." John Addington Symonds: *The Poetries of the Several Arts* (Essays, pp. 90, 91).

* M. Charles Lucas instances the statues of ancient architects set in the monuments built from their designs:

7. It is true that the execution of architectural work, as regards a building, is dependent on others, but the architect's workmen are, in this case, in the same relation to him as the bronze foundry are to the sculptor, the orchestra of musicians to the composer, and the printers to the author of literature. They execute, in each case, the reproduction of his design.

8. The utilitarian value to the public of the architect's work has been cited as an objection to its being protected. It should, however, be remembered that the Convention only protects *artistic* work [v. Articles 1, 2 of Revised Convention], and that the Courts, in countries enjoying protection, require proof of the artistic character of any work for which the privilege is claimed. Usefulness in the application of an art cannot be admitted as a basis for copyright, or the sculptor's caryatides, being essentially supporting pillars, would be denied protection, together with cups, vases, or any other like subjects of his art which subserve a useful purpose.

9. It is as difficult for the painter, sculptor, or other artist, as for the architect, to contrive a work which is absolutely *novel*. All alike find their motives, whether consciously or unconsciously, in tradition, and in that "Domaine Public" of Art which consists of the material left us by centuries of past civilisations, whether Prehistoric, Egyptian, Greek, Roman, Gothic or Renaissance. Into this "Domaine Public" fall also modern works as the period of their protection expires.

10. That architectural work is generally exposed to the public view and enjoyment is, again, no reason for denying it protection. The public monument erected by a sculptor is in precisely the same category, and no difference is made in

he mentions that, in Chabéa, of Goudéa, architect of the palace of Tello, more than 3000 B.C.; in Egypt, under Rameses II., that of Baken-Khonsou, high priest of Ammon, architect of the Thebes palace (1500 B.C.). In Greece it often happened that the monument was called by the name of its architect, as the Agora of Hippodamos in the Piræus, or the portico of Agnaptos at Olympia. In the same way, in our own time, the statue of Sir Charles Barry stands in the Houses of Parliament, and the monument to George Edmund Street in the Hall of the Law Courts. (Milan Congress, 1892.—*L'Architetto* (Paris), 1892, p. 441.)

* The distinctions suggested as existing between architectural and other artistic works in §§ 7, 8, 9 are mentioned because they were actually raised in Germany during the discussion on their Copyright Law of 1876, in which the protection of architectural work was not included. The objection cited in § 10 was given effect to in their subsequent law of 9th January 1907, but is now officially disavowed by the action of the German delegates at the Berlin Conference, November 1908 (v. *Blue Book*, p. 68):

"In reference to photographs, works of architecture, and chorographic works, the Imperial Government proposes to give a modification of the arrangements relating thereto in the Protocole de Clôture (i.e. of 1896) in order to clearly indicate that their protection shall be absolutely the same as that assured to the works enumerated in Article 4 (i.e. of 1886).—*Speech of Dr. Osterleith, German Delegate*.

countries where sculpture is protected* between statues placed in a gallery or in a private house, and those in public places.

11. The protection of an architect's work causes no injury to his fellow-artists; they may still study, and be inspired by it, if it is worthy. All that is claimed is that, the reproduction of it shall be to his profit, and not to the profit of one who did not design it.

12. The reputation of an architect rests on his work, and he alone has the right to claim its authorship. By its production he submits himself and his prestige to the criticisms of his fellow-artists and of the public, whether for praise or blame. His name alone therefore should be associated with his design, and he alone should be entitled to reproduce it, and to receive the remuneration which those who desire to possess it are willing to give.

II. The Desire of Architects in all Countries of the Union for Legal Protection.

13. For more than thirty years the need for protecting the work of architects in the same way as that of painters and sculptors is protected has been continually urged by the representatives of the profession in all civilised countries. The International Conferences of Architects at Paris in 1878, 1889, and 1900, at Brussels in 1897, at Madrid in 1904, London in 1906, and Vienna in 1908, have each passed unanimous resolutions to this effect;† and similar resolutions have been adopted by the Congresses of the International Association of Art and Letters held at Paris, Madrid, Neuchâtel, Milan, Barcelona, Antwerp, Berne, Monaco, Turin, Liège, Bucharest, Mayence, and elsewhere, from its foundation in 1878 to the present time.

14. The general movement in France is expressed by the "Note"‡ presented by the Société Centrale des Architectes Français to the Inter-ministerial Commission appointed by the Ministry of Foreign Affairs previous to the Berlin Conference of 1908. Thirty-two French societies, comprising 2,800 architects, supported this.

* *E.g.* in France—Law of 1793 supplemented by Law of 11th March 1902.

† The form of resolution adopted is the following:—

a. "Architectural designs comprise the drawings of the external and internal elevations, plans, sections, and details; these constitute the original expression of the architect's thought, and are the work of architecture."

b. "The building is but a reproduction on the site of the architectural design."

c. "This Congress renews the claim that works of architecture should be protected by all legislations and in all international conventions equally with all other artistic works."

‡ "De la Propriété Artistique des Œuvres d'Architecture"; Note présentée par la Société Centrale des Architectes Français à la Commission Interministérielle chargée de préparer la participation de la France à la Conférence Littéraire et Artistique internationale de Berlin. Paris, 1908.

The Bureau of the Comité Permanent, representing the architects of eighteen countries, has used every effort to put architecture on the same footing as regards copyright as the sister arts of painting, sculpture, and engraving.

In Austria-Hungary, a country non-adherent to the Berne Convention, energetic efforts have been made by architects to induce their Government to adhere to the Convention and protect architecture, painting, and sculpture.

In Germany, Holland, Belgium, Denmark, and Sweden representations have been made by the architects to the deputies, senators, and Ministers of their respective countries.

In Spain and Italy the Societies of Architects have in the same way approached their Governments, and action has lately been taken in Portugal.

England has now withdrawn its official opposition, and especial gratitude is due by the profession to the late Sir H. Bergne, K.C.B., for his support of their interests at the Berlin Conference.*

III.—The Need for such Protection in Great Britain, and instances of injury arising through its absence.

15. The need for the protection proposed by the New Convention of Berlin was very forcibly brought home to British architects by the decision of Mr. Justice Ridley in the case of *Gibbon v. Pease*,†

* The information in paragraph 14 is taken from the Report made to the Comité Permanent (see above (b)) by the Secretary-General, 19th November 1908 (Com. Perm., Fasc. VI., p. 11).

† *Gibbon v. Pease*, K.B.D., before Mr. Justice Ridley, 15th November 1904, and Court of Appeal, 24th March 1905.

"The ownership of drawings was in question in the case of *Gibbon v. Pease*, before Mr. Justice Ridley in the King's Bench Division, on the 15th inst. The claim was for delivery up of contract drawings and specifications, which the plaintiff, the building owner, alleged that the defendant, his architect, had wrongfully detained. The plaintiff also claimed damages.

"Plaintiff's counsel, Mr. Danckwerts, K.C., argued that the real point in the case was whether a person who employed an architect to make plans for him and supervise the building operations was entitled to have the drawings he the employer had paid for. At the date of the contract with the builders the drawings then in course of preparation by the defendant were made part of the contract.

"Defendant's counsel, Mr. Kemp, K.C., contended that the drawings were prepared simply for the purpose of enabling the architect to see that the buildings were constructed in accordance with the approved design. If architects were bound to hand over these papers immediately the work was completed they would be in a hopeless position, and unable to protect themselves should they be attacked. Counsel offered evidence of custom that, in the circumstances of the case, the drawings and specifications were the property of the architect.

"His Lordship declined to admit such evidence, holding that the case was governed by *Ebdy v. McGowan* (noted in Macassey and Strahan's *Law relating to Civil Engineers, Architects, and Contractors*, 2nd edition, p. 40). The drawings belonged to the employer, unless there was an express contract that they should belong to the architect.

"Stay of execution was granted to enable the defendant

which was upheld on appeal. By this decision the long-established custom in England under which architects have always retained possession of the working drawings, calculations, and documents prepared by them for the purpose of erecting buildings was declared to be contrary to existing law. Any client, therefore, may demand that the whole of the drawings and specifications shall be handed over to him: and as there is no legal provision to prevent his making any use he pleases of them, he may even apply them to the carrying out of other buildings, without the architect having the slightest legal redress or compensation of any kind.

The decision was received with astonishment and dismay by architects throughout Great Britain, and it was pointed out by a writer in *The Builder* (24th December 1904) that the consequences were as unreasonable as to require Krupps or Armstrongs to hand over to the purchaser of a piece of ordnance the experimental and completed drawings, specifications, calculations, patterns, particulars, and tests referring thereto.

16. That certain explanatory drawings of the structure which has been erected by an architect should be furnished by him to his client for purposes of reference is, of course, reasonable. It is my own practice, and that of most architects of my acquaintance, to supply key-plans of the drainage, water supply, and such matters; but this is very different from handing over the whole technical detail of the building. Indeed, if an architect were generally required to part with the studies, detailed calculations, and annotated drawings which he has prepared during the progress of a structure it is difficult to see how his practice could be carried on. Such documents form the continuously accumulating records of his life's experience—he needs them for daily reference—and to deprive him of them inflicts upon him a most grievous hardship. I have shown above, §§ 2, 3, 4, 5, that his procedure of design is analogous to that of the sculptor, and I believe it has never been contended that the purchaser of a statue is entitled to the sculptor's studies for the work, whether he has expressed his ideas on paper or in plastic material.

17. The need for legal protection is felt by architects more especially with regard to their smaller buildings. Important works are, naturally, costly and are almost invariably adapted to special conditions and requirements unsuited to the needs of those who wish to erect similar buildings. But there are many instances of the reproduction of cottages and small houses whereby the original designers have suffered wrong. Such works are both easier and cheaper to reproduce than sculpture of equal value. The ignorant copying of architects' designs by speculative builders is especially mischievous, doing injury both to the pocket and

reputation of the architect copied, and debasing the level of public taste. Although the repetition by less competent designers of features and motives introduced by greater men may be admitted to be in the nature of a clumsy compliment, it may also be conceded that if the original designers were entrusted with discretionary power to prohibit such copies, the exercise of their right (if they desired to use it) would tend to induce independent design in others in place of that indolent adoption of ready-made material which is far too frequent.

18. The increased facilities in recent years for the reproduction of architectural work in journals, magazines, photographs, post-cards, &c., make it more needful than was formerly the case for the author to have some means of controlling the accuracy and quality of the reproduction. At present he must submit to any caricature or unfavourable presentation of his work which a publisher chooses to offer for sale; he has no right to demand that his name should be attached to his work nor that it should be correctly given. He should certainly be entitled to such a share of the profits resulting from the representation of his building as may be agreed between the publisher and himself. I am not here referring to the publication of architects' works in the English professional journals, which is, so far as I am aware, always done by permission of their authors and under satisfactory conditions.

19. I produce, for the information of the Committee, letters of complaint from practising architects all over the country of injury sustained by them through lack of legal protection.* All the writers are members of the Royal Institute.

* The following letter appeared in *The Builder*, 20th March 1909:—

"Sir,—I observe in your issue on the 13th inst. a view of business premises in Budge Row, to which is attached the name of Mr. S. Clifford Tee as architect.

"As these buildings were erected during 1905 by Messrs. Holloway Brothers from my designs, I shall be glad if you will publish this correction in your next issue.

"I am aware that Mr. Tee prepared designs for buildings on this site, but his designs were never carried out.

"The description of the buildings which you publish is in all other respects quite accurate.

JAMES S. GIBSON.

The view referred to was a double-page photographic illustration. No public notice of the above letter was taken by the person who had appropriated the authorship.

LIST OF LETTERS REFERRED TO IN §§ 18, 19

No. 1. K. Y. and H. H. (London).—Complaint of unauthorised reproduction of a complete plan of a ward-pavilion at Royal Derbyshire Infirmary in Notter and Firths' *Theory and Practice of Hospital*.

No. 2. T. (London).—(a) Complaint of certain plans of a school, for which approval of Board of Education had been obtained, having been traced and the building erected therefrom by another architect without the author's knowledge or consent. (b) A landowner sends his architect to measure a school built by the complainant with

to appeal, it he thought fit; and nominal damages of 1s. were given"—JOURNAL R.I.B.A. 26th November 1904.

IV. The Means for giving such Protection.

20. The analogy of the artistic procedure of the architect in the preparation of his designs with that of the sculptor has already been shown (§§ 2, 3, 4, 5). The insertion of the word "architecture"

a view to having it re-erected as an estate school on his own property.

No. 3. K. and P. (St. Anne's-on-the-Sea).—Complaint of their work being reproduced "brick for brick" by speculative builders.

No. 4. H.—Complains that his work has been copied in positions incongruous with the style adopted, bringing serious work into ridicule.

No. 5. W. H. D. C. (Cardiff).—Complains that persons contemplating erection of a new kind of building, similar to one whereof his plans were then under consideration by the Local Authority, went to the Council Office to inspect them, but were fortunately denied access by the Surveyor.

No. 6. A. B. (London).—(a) Complains that, having built two cottages for a client, "quite a little village" of cottages was reproduced from the same design without his authority. (b) That a builder, to whom drawings for a small country house had been sent for the purpose of preparing a tender for the work, has had them carefully traced for the purpose of reproducing them as a speculative building.

No. 7. R. A. H. (Wimbledon).—(a) Has known clerks in the offices of public bodies, with whom plans of small villas have been deposited, to trace and sell them as original to speculative builders. (b) Complains that certain plans for a large building having been deposited with the authority, by whom they were approved, the authority has allowed them to be traced on behalf of adjoining landowners who opposed the scheme.

No. 8. C. T. A. (Manchester).—Complains that a builder has taken the plan of small houses which he was employed to build and reproduced them for speculative purposes.

No. 9. W. L. F. B. (London).—(a) Complains that houses built to a special and peculiar plan prepared by him have been copied as regards the plan. (b) That a house designed by him has been duplicated by the owner without further payment. (c) That his plans have been handed by his clients to other architects for the purpose of erecting additional buildings.

No. 10. J. W. C. (Great Yarmouth).—Complains that a whole series of small erections erected by him as shelters, bandstands, cricket pavilions, tea-rooms, &c., were photographed and copied directly into the trade list of a manufacturer of such structures with an intimation that prices could be obtained on application.

No. 11. Hippolyte J. Blanc (President Edinburgh Architectural Association).—Writes in support of the proposed protection of architectural work, and complains that his plans submitted in competition for the restoration of Kirkwall Cathedral, which embodied seven years' study of the structure, have been handed by the Committee of promoters to another architect who is to execute the restoration, and who is thus supplied with a complete monograph of the building without cost to the employers.

No. 12. R. P. N. (London).—Complains that, having made a set of plans for houses and shops adapted to a particular site, the freeholder, to whom they were submitted for approval by his client, subsequently erected the buildings therefrom without acknowledgment or payment to the author.

No. 13. C. H. Fowler, F.S.A., Cathedral Architect (Durham).—Complaints of several cases of appropriation, in particular of one. Having made designs for restoration and alteration of a church, the living changed hands and

between the words "painting" and "sculpture" in Article 2 of the Revised Convention shows the international recognition of them as sister arts, and the means of protection adopted for sculpture will be applicable for architectural work.

21. It is hardly within my province to deal with actual methods of legislation. These will, I apprehend, form the subject of a later enquiry and a Government Bill, possibly on the lines of that submitted by the Artistic Copyright Society.* I understand that the promoters of this Bill are

he could hear nothing of his drawings (which had not been paid for). Three years after several sets of plans were submitted for him to report upon by a Diocesan Society. Among them were his own, with his name erased and that of another architect substituted. This architect has carried out the work and got the pay.

No. 14. N. H. & S. (London).—Complaint of their designs for houses being repeated by builders for their own speculations, with disfiguring alterations in detail.

A head-stone designed by an architect for his own father's grave was, to his grief, copied line for line and used for the grave of a stranger in the same cemetery.

No. 15. A. S. D. (Manchester).—(a) Complains that his design for the front elevation of Pontypridd Town Hall, published in the *Architect*, 1st May 1901, was copied as a design for the Carnegie Library at West Loughton by another architect, and published by him in the *Building News*, 7th December 1904. (b) That his plan of Bangor Library, published in the *Builder's Journal*, 23rd May 1900, was copied and republished by another architect as design for Earlestown Library. (c) That his design for Gorton Infants' School was copied and published in *The Builder* by another firm of architects as a design for another school.

No. 16. W. H. A. B. (London).—(a) Complains that a builder who erected certain houses in accordance with his design subsequently erected, for his own purposes, without the architect's permission (but with the sanction of his client), other buildings substantially identical with those carried out from the architect's drawings. (b) That a drawing executed by the architect and exhibited in the Royal Academy has been reproduced without his knowledge or consent by a firm of cabinet makers and published by them in a catalogue purporting to show small country houses designed and executed by themselves. This without recognition of the architect as author of the original design and drawing.

No. 17. W. G. H. (London).—Complains that having designed a pair of small houses at North Foreland, the builder employed to erect them has since built another pair to the same design and is now actually building a second pair. Two (mutilated) reproductions of the work are thus erected within two or three hundred yards of the original.

No. 20. B. (London).—Complains that a block of three cottages built by him was reproduced several times by the owner without reference to the author.

No. 22. J. R. (London).—In 1889 he built a house at Pinner for Lady W—. Two years later he saw at Sel-don Road, Croydon, an exact duplicate of the house, which had clearly been copied from his own.

No. 23. Mr. Ernest George, President R.I.B.A. Reproductions (photographic) of his works at Welbeck Abbey for the Duke of Portland appeared in *Country Life*, 21st April 1906, and of his work at West Dean Park in the same magazine of 29th July 1899. In neither case is any reference made to him as the author of the work.

* A Bill intitled An Act to Consolidate and Amend the Law relating to Copyright in Artistic Works (Artistic Copyright Society, April 1909).

willing to amend its provisions in order to give to architects equal protection with sculptors, and in that case the Royal Institute of British Architects would give it their support. A definitive paragraph would require to be added to Clause 29 of the Bill, which, following the order of the Revised Convention, I suggest should be placed between paragraphs 2 and 3. The following wording would perhaps suffice:

" Clause 29.—2A. Work of architecture means the designs for external and internal elevations, plans, sections, and decorative detail, and any building or structure being a reproduction thereof."

Clause 20.—There would be no objection or difficulty about "marking" a building, by the name of its author being indicated on the work in the accustomed manner. The practice of signing a building is already common in France, and is officially recognised by the Royal Institute of British Architects. It is seldom done in Great Britain at present, since, as there is no legal reason for doing so, signatures are apt to be regarded as mere advertisements.

Clause 9 (d).—The seizure or demolition of a building is already provided for in case of contravention of certain Building Acts.* It is unlikely

* Revised Convention, 1908, Article 15, par 1.

+ *E.g.* London Building Act 1894 (Part XV., Section 170).

"Where any person has been convicted of an offence against any of the provisions of any Part of this Act, or any by-law made thereunder, by constructing, erecting, adapting, extending, raising, altering, uniting, or separating any building or structure, or any part of any building or structure, in contravention of any provisions of any Part of this Act, it shall be lawful for the Council, after giving fourteen days' notice to such person to bring such building or structure into conformity with the said provisions, and after default shall have been made in complying with such notice, and notwithstanding the imposition and recovery of any penalty, to cause complaint thereof to be made before a petty sessional court, who may thereupon issue a summons requiring the person making such default as aforesaid to appear to answer such complaint, and if the said complaint is proved to the satisfaction of the court, the court may make an order in writing authorising the Council, and it shall thereupon be lawful for the Council to enter upon such building or structure with a sufficient number of workmen, and to demolish or alter such building or structure or any part thereof so far as the same shall have been adjudged to be in contravention of this Act, or any by-law under this Act, and to do whatever other acts may be necessary for such purpose, and to remove the materials to some convenient place and, if in their discretion they think fit, sell the same in such manner as they may think fit, and all expenses incurred by the Council in demolishing or altering such building or structure or any part thereof, and in doing such other acts as aforesaid, or the balance of such expenses, after deducting the proceeds of sale of the aforesaid materials (if the Council thinks fit to sell the same), may be recovered from the person committing the offence aforesaid in a summary manner.

"If the proceeds of such sale shall be more than sufficient to defray such expenses, the Council shall restore the surplus of such proceeds, after deducting the amount of all such expenses to the owner of the building or structure on demand."

Power given to demolish buildings to be exercised by the

that such an order of Court would be sued for unless in extremely flagrant cases of injury to an author through the pirated reproduction of his design. Even then a partial demolition, sufficient to clearly differentiate the copy from the original by the removal of certain features, would nearly always meet the case. The other provisions as to injunction to restrain and damages are also quite suitable for the protection of architectural work.

So far as I am qualified to judge, the Bill appears in other respects, *mutatis mutandis*, to afford the protection to architecture contemplated by the Revised Convention.

22. Unanimity of legislation with the other subscribing countries to the Convention is greatly to be desired in view of the constantly increasing business relations between the architects and employers of different countries. For this reason I think the term of protection proposed should be that fixed by the Revised Convention. In view of the wording of Article 7, par. 2, of that document, it would appear that the adoption of a shorter term would be merely a self-denying ordinance on the part of British architects, who would not, when building in a country with a longer term, be in that case able to claim the same privilege as the natives of that country.

23. As regards arrangements for publication and the collection of royalties, if such should accrue, this would be a matter for private arrangement and does not affect legislation. Such a machinery as that by which the Société des Artistes Français deals with all such matters would be instituted; there is, in fact, in the "Architects' Technical Bureau" just such an organisation as is needed. As showing that such a machinery may be usefully employed I may mention that when the result of the international competition of architects for the Peace Palace at the Hague was announced, the premiated designs were reproduced by more than two hundred journals. If only 50 fr. had been paid by each for the right to publish—a very low tariff—the authors would have benefited by the amount of 10,000 fr., and that without injury to the publishers who profited by the reproduction of the authors' work.

V. The Practicability of Effective Protection to Architectural Work and Instances of its Effect in Protected Countries.

24. The unanimity of the Delegates of all the contracting countries at the Berlin Conference, with regard to the protection of architectural work, renders it almost unnecessary to show that the proposal is a practical one. In France and Belgium such protection is well established, and a considerable jurisprudence exists on the subject based, I under-

Borough Councils under London Government Act, 1897, Second Schedule Part II, only when they have obtained conviction.

stand, upon the law of 1793. M. Harmand, the learned French counsel who has made it his special study, says:—

"In 1793, in France, as in England in 1734 (8 Geo. II., cap. xiii.) and 1766 (17 Geo. III., cap. xxxviii.) the Legislature thought specially of designers, and of painters and engravers who had their works engraved or reproduced. Although French law was silent as regards sculpture and architecture, the sculptors soon claimed the same protection as the painters and designers; it was accorded without difficulty, and in 1885 for the first time an architect claimed the same protection, and it was granted also to him. Since then in France the law of 11th March 1902 has expressly added architects and sculptors to the list of artists benefiting by the artistic copyright law 1793."

25. For the convenient reference of the Committee I may be permitted to quote the following extracts from the Blue Book:

(a) "In regard to works of architecture, we were convinced by the arguments advanced by M. De Borchgrave, one of the Belgian delegates, that the protection of works of architecture, as apart from the plans, &c. from which such works are constructed is perfectly feasible."—*Report of the British Delegates to Sir E. Grey* ("Blue Book," p. 6)

(b) "... works of architecture' had up to the present encountered opposition. It was fully admitted that plans and sketches should be protected, but it was contended that the 'work of architecture' in itself, that is to say, the construction, should not be protected, and certain legislations refused it protection. In 1896 the Belgian and French Delegations had shown that there is no reason for distinction between the sculptor and the architect, that the work of the one deserves to be protected as much as the work of the other. They had to content themselves with the insertion in the Protocole de Cloture No. 1 of a statement in the following terms: 'It is agreed that in the countries of the Union where protection is accorded not only to architectural plans but also to the works of architecture themselves, such works are admitted to the benefit of the provisions of the Convention of Berne and of the present additional Act.' It was remarked that there was thus, on the part of the countries referred to, a concession made without reciprocity to the countries of the Union whose legislation does not protect the works of architecture themselves. The German Administration which, in 1896, was opposed to the protection of works of architecture has in its proposals for the present Conference abandoned its former point of view. The text of the Protocole referred to above was to be replaced by the following: 'The stipulations of the present Convention apply equally to works of architecture.' It was therefore logical to demand, as the German, French, and Belgian Delegations have done, that works of architecture should be mentioned in Article 4 besides works of design and painting. It has been objected that it was hardly necessary, because no difficulty seemed to have been ever raised on the subject, and that besides it could not be admitted that a builder or an architect who had erected a house with a front in which were a door and six windows had cause for complaint because another building contained also a door and six windows. This objection was met by the production of judicial decisions which established at once both the existence of difficulties and the fact that they could be settled with reason by the tribunals. All protection will be refused to a commonplace building which does not disclose the personality of its author: it is original artistic work which it is intended to

protect. To conclude, the insertion of works of architecture in the enumeration of works to be protected has been admitted without opposition, the Swedish Delegation only reserving certain points. It is a legitimate satisfaction accorded to the wishes so often reiterated by the Societies of Architects in various countries."—*Report to the Conference by the Committee appointed to draw up the Revised Articles* ("Blue Book," p. 117).

26. I produce [*see Appendix*] for the information of the Committee a note of four decided cases which clearly indicate the working of the protection of architectural work in countries where it obtains, viz. the *Christensen* case at Copenhagen (1); the *Hompus* case at Antwerp (2); the *Lafont* case at Nantes (3), and the *Beyaert* case at Liège (4).

27. It has been sometimes thought that the work of students, with regard to important monuments and public buildings, might be interfered with by the action of copyright. This is, I apprehend, an error, any one is free to sketch, measure, or otherwise study any work so long as he does not make reproductions of it for his own profit to the injury of the author.

The free exchange of information and plans between Municipalities and County Councils would, it has been suggested, be interfered with. This, again, is a misapprehension. The ownership of all work produced by their officials is secured to such employers by the terms of their engagement. Non-official work would, on the other hand, be protected or become a subject of arrangement if a Corporation desired to secure the copyright.

APPENDIX TO § 26.

(1) CHRISTENSEN v. HENRIKSEN AND ANDERSEN.

Cour Supérieure de Copenhague: 17 Sept. 1906.

In this case the appellant, Ch. P. Christensen, an architect, alleges that in the year 1904 he lent a design (made by him for another purpose) to one of his clients at Koroer, who handed it to the defendants, H. J. Henriksen and H. Andersen, a master mason and a master carpenter respectively, in order that they might prepare for him an estimate of cost for a building which he thought of erecting but did not carry out. The appellant deposes that the defendants, while in possession of the said design, fixed it upon a board by means of four drawing-pins and took a copy thereof by means of tracing-paper, of which they made use for the purpose of a building which they erected for another person not cited.

The fact of this tracing having been made by the defendants and shown by them to their employer was proved and admitted, but the defendants denied that they had actually built a copy of the appellant's design, asserting that the building was taken from certain German and Danish books which they named. Further, they asserted that there were essential and radical differences between the design and the building, and relied on the contention that the appellant could not be considered an artist nor could his design be considered original; he could not therefore be entitled to succeed.

The defendants did not, however, produce the design from which they alleged they had built, nor the books from which they alleged they had taken it, and it was held to be proved that the building had been in fact erected from the appellant's design.

Judgment for the appellant, the defendants to pay him

* VIIth International Congress of Architects, London, 1906, *Transactions*, pp. 135-6.

100 crowns damages with 5 per cent. interest from date of the writ, and an amount besides to pay to the poor box of the town of Kersoir a fine of 100 crowns, and to pay 100 crowns the costs of the trial and appeal.

12 HOURS.—H.—11 L.—

Tribunal Civil de Commerce, 25 October 1893.

In 1893 a candidate for Antwerp, M. Hompus, complained that a printed copy had been made by a cemetery of a monumental monument in shape to which he attached much importance. It appears that a family desiring to erect another monument had seen the one in question, and ordered a copy thereof. After the terms of one builder to whom they applied, they found another who agreed to erect the printed copy instead of applying to the architect who was the author.

The builder measured the original, prepared drawings therefrom, and built a chapel like that of M. Hompus'. The latter immediately took legal action, which resulted in the following judgment:—

The documents produced in the case prove beyond doubt that the monument constructed by the defendant is nothing but an almost exact copy of the monument designed by the complainant.

The architectural portion indeed which forms the background of both monuments and constitutes the principal part of the work is the same in both monuments, with the exception of small and unimportant details, such as rosettes replaced by diamond-shaped projections, and an urn with a diaphanous vase of a plain form.

Such differences in detail far from disproving that the monument constructed by the defendant is a forgery of that of the complainant, prove on the contrary that the defendant has sought by difference of detail to disguise the forgery.

In order to be considered as author of a work, it is not necessary to produce a conception entirely and completely original, or of which all the elements have been invented and comprised by the person who created the work; the person who composes or executes a design and scheme, by adding his character of individuality to the elements supplied him by the *Dépense Publique* may be deemed to be the author thereof.

It is, in fact, the combination of these various elements in a particular way which makes of them an original work, an artistic creation in the legal sense, and it is such work that the Legislature has intended to protect.

It is unnecessary that the work produced be one of genius; it is sufficient that it have an artistic character.

It remains to be noted that the various elements which compose the monument designed by the complainant existed previously, since the assemblage, only of the elements, should be considered and their disposition in a certain special way, it is this which constitutes, in such a matter, the product of the intellectual activity of the author, his personal and artistic endowment, and consequently establishes the individuality of the work in question.

This judgment was based on the Belgian Law of 22nd March 1886.

The defendants were ordered to pay 500 frs. damages, with legal interest; to be obliged to produce the plaintiff's design in future; ordered to erase the signature from the monument together with any indication that it had been designed by the defendants, under penalty of 500 frs. every day the order remained unsatisfied; and ordered to pay costs.

CH. LACONTE, P. LALLEMENT.

Tribunal Civil de St. Nazaire, 5 June 1891.

The following judgment was given in favour of M. Latout, an architect of Nantes, in respect of a cottage of which the plans had been copied closely by the builder who had

carried out the work for the client of M. Latout. The builder, to justify his action, alleged (1) that there was no artistic character in the work which he was accused of pirating; (2) that he had received the drawings from his employer, who had given him authority to erect the new building from the said drawings which had been given him by M. Latout.

In giving judgment the judges said:—The comparatively small cost of these cottages cannot, as has been pleaded by Lallement (the builder), be an obstacle to the action of Latout; indeed it is a professional duty on the architect's part to have succeeded in building, in a specially cheap way, reasonably comfortable houses; the art of building in small places is of a special kind, which demands the double condition of originality and fancy on the absence of high art in execution and moderation in cost, and has a right to legal protection.

The judgment adds, respecting the authority given by the employer to reproduce the plans:—It is in vain for the builder to allege that he had the authority of the employer, who could give no right to the pirate builder other than that he himself possessed; the drawings given to the employer referred only to the building in respect of which they had been given to him; that even if he had paid for the drawings he could not give the copyright in them either with or without consideration, since he would otherwise have procured either for himself or for another a profitable sale, times repeated to the injury of the architect, in any case depriving him of his best remuneration; that such a transaction, contrary both to law and equity, could not be admitted unless by the employer producing by formal documents, proof of the extent of the assignment to which the architect had consented to his profit.

The judgment concludes:—It is important that an architect should hold in the property of his intellectual and artistic conceptions the just remuneration of his skill, which would be lost to him if the contention of Lallement were to be allowed to succeed.

This judgment is based on the Code Civil (Article 1382) and the law of 1793.

Defendant was ordered, in view of the small cost of the cottage in question, to pay 100 frs. damages, with interest from date of the writ, and to pay costs.

Assemblée législative de la République de Nantes, 1892, p. 140.

CH. BEYAERT, LA REVUE DE L'ARCHITECTURE EN BELGIQUE.

Tribunal de Commerce de Louvain, 22 Nov. 1883, confirmé par la Cour d'Appel de Louvain, 18 d. Nov. 1884.

In 1883 a distinguished Belgian architect, M. Beyaert, prohibited a French journal, *La Revue d'Architecture en Belgique*, to publish the Antwerp Bank, which he had designed and which is one of the most important buildings in that city. M. Beyaert succeeded in his case; the following is an extract from the judgment:—

"A distinction must be drawn in the architect's profession between the production which is a matter of current practice, and the production which, being the result of special study and exceptional knowledge, acquires thereby a character marked by individuality; a production of the latter nature is evidently a creation protected by the law of artistic copyright."

This judgment is based on the decree of 19-24 July 1793.

It was held that justice would be satisfied by the infliction of nominal damages (1 frs. 50); by the payment of costs by the defendants; and the publication of the judgment and proceedings in five Belgian journals, to be selected by the plaintiff, at the cost of the defendants.

II.

STATEMENT PREPARED FOR THE COMMITTEE BY MR. JOHN BELCHER, R.A.,
Past President.

1. I am a Royal Gold Medallist; Past President of the Royal Institute of British Architects; President of International Congress held in London; Vice-President of the Comité Permanent International des Architectes; Membre Agrégé de l'Académie Royal des Beaux-Arts, Antwerp; Hon. Member of the Société Centrale d'Architecture of Belgium; Hon. Member of the Société d'Architectes diplômés par le Gouvernement Français; Hon. Member of the Société Impériale des Architectes in Russia; Hon. Member of the Société d'Architectes, Holland; Hon. Member of the Société d'Architectes, Portugal; Hon. Member of the Architekten Verein of Berlin; Hon. Member of the American Institute of Architects.

2. I have read the evidence of Mr. John W. Simpson, and support his views.

3. As a member of the above Societies I am able to confirm the statement that the most notable representatives of the profession in every country have continually urged the need for protecting the work of architects in the same way as that of painters and sculptors.

4. Architecture in every country is regarded as a "Fine Art," and should be placed on the same footing as the sister arts.

5. In this country, owing to lack of recognition and encouragement, it fell into a low condition, and became the Cinderella of the Arts. Of late years, however, it has advanced both in character and quality, and may now be held in higher and greater esteem.

6. In my opinion the art would advance more rapidly and the public taste be further improved if all architectural works were protected.

7. Everything that will tend to the advancement of Architecture may be considered as in the interests of the community.

Those who regard it are insensibly affected by it. Good architecture will surely draw out what is best in those who live with it, and is in the highest degree educative, while that which is blatant, vulgar, or debased will necessarily disturb and be injurious in its effect.

8. The public taste is lowered by speculating builders and incompetent men who have copied and adapted in mutilated form the designs of

architects—designs not only misused but wrongly applied.

9. The architect who has devoted years to the study of his art and who has given time and thought to the development and working out of his designs is at present unprotected. His designs can be reproduced and his building caricatured. A building which is designed for a certain locality and aspect, and possessing special surroundings, if erected elsewhere, under other conditions, would be obviously wrong and its appearance so changed that the original work would be discredited.

10. The facility with which copies of designs can be obtained is a temptation to the inexperienced man to adapt the designs of a more experienced architect. He can make use of that which pleases him, and thus save both time and thought.

By such courses the public are deceived, and the mass of adapted reproductions of contemporary architectural designs becomes the standard of public taste, or represents to them the prevailing fashion which must be followed.

11. Not only is the advancement of architecture hindered, not only are the public imposed upon, but the architect is defrauded of his property so long as it is unprotected.

12. The improved methods of the reproduction of drawings has increased the chances of dishonest dealing.

In the case of a young architect of ability it is a peculiar hardship when, having designed a small house, by careful study and contrivance he has provided all that is required at a minimum cost, and a speculating builder takes his drawings and erects on his eligible building site a large number of houses of the same design without either acknowledgment or payment of the author.

The Editor of a Building Journal informed me that he did not desire to reproduce drawings of large buildings, but that he obtained drawings of small houses from architects, as his paper had a large circulation amongst country builders and estate agents, who told him "they found them useful."

13. The interest of the architect in copyright is in the protection of his personal intellectual property, which consists in the drawings from which his building is erected or from which a building can be erected in the future.

14. In all these things his interests will be protected and his art be advanced if it is accorded its proper place between the sister Arts of Painting and Sculpture.

THE TRAINING OF THE DESIGNER.

By PAUL P. CRET, A.D.G.

Read before the Philadelphia Chapter of the American Institute of Architects, March 1909.

THERE is no need for a demonstration in a society of architects of the importance of the study of design. They are convinced of it well enough, for in an inquiry conducted in 1906 by the Architectural League all the answers which came from men of training and tendency so diverse as Messrs. Lord, Goodhue, Van Pelt, Bragdon, Mundie, Eames, Ittner, Taylor, Lacey, and others placed design in the first rank of the subjects composing the curriculum of the college studies for the architect. All these answers suggested also that a greater amount of time be devoted to design, and a smaller amount to the other studies, than is now the case.

It is useless, also, to point out that almost all studies other than design are valuable only as preparation for or as a complement to it: some, like drawing and modelling, give to the designer the means of giving a concrete form to his ideas; mathematics and pure sciences are a preparation for the study of construction, which is only the means of designing a building economically and rationally. The history of architecture puts at our disposal the types and forms accumulated through the patient efforts of our ancestors. In short, everything in this curriculum of the school has no other purpose than to make a better designer.

What is an architect but a designer of buildings? This definition is less elaborate, but perhaps more concise, than the one proposed by the Committee on Education of the American Institute—viz.

"An architect we define as one ranking in the class of men of culture, learning, and refinement, differentiated from the others of his class solely by his function as a creator of pure beauty, as an exponent through material forms of the best secular, intellectual, and religious civilisation of his time, and as an organiser and director of manifold and varied industries and activities."

What I want to give here is a brief account of the spirit in which I think design ought to be taught, and of the best method of teaching it—or, more exactly, for I do not expect to cover the whole subject, a few considerations about its teaching.

It has been said that designers are born, not made. The same thing has been said about almost every profession, including the cook's—and it is true, with some restrictions. It is a pet idea of the general public that the great artist, painter, sculptor, or architect (when the general public is kind enough to include the architect among the artists) felt one day a sudden inclination to sit in front of the easel or drawing-table and, after having pressed his brow, gave to the world a new masterpiece. The truth, as we find it in studying the lives of the great

masters, or as we have been able to observe it in our own time, is very different; less theatrical, but more beautiful, for it implies a constant effort from the beginning to the end of a man's life. The most gifted men have had to work as much as and more than others to develop their talent, and in the particular case with which we are occupied I should say that the main difference between the good designer and the poor one is that the one has the possibilities and willingness to study a problem a longer time than the other.

In the beginning of any work of composition the finding of the scheme may seem a sort of chance game in which some are luckier than others. There is, however, a corrective to the chance which seems to treat indifferently the good or bad designer. If the bad designer starts on a poor idea, he is unable to better it. He will work over it for a certain amount of time, then stop without being able to go further, and usually too pleased with what he has done. If he gets a good idea, he will not be able to express it, to make it a concrete thing. He is going to diminish it little by little and make it unintelligible, except to the trained eye.

A good designer, on the other hand, if he does not find the best solution of a problem at first, will have enough training of the mind to find many solutions, seeing immediately the possibility of retaining some parts of them; and by the end, and after a good deal of work, if he has not produced a masterpiece, he will certainly have at least designed a building fitting the conditions of the programme, well studied, of good proportions, architecturally correct and useful at the same time; but when he has, perchance, the intuition of the good scheme, he will have the ability to give it an architectural form, to improve it, to make it manifest to everyone in such a way that the work will become one of the landmarks in architectural history.

We see at once that superiority in design is to know how to study, that is to say, to give form to an idea and to improve it by good proportions. One of the masters used to say to his pupils that in the start of a competition there was no such thing as a bad scheme. He wanted to impress in a forcible way that even a poor scheme, put in the hands of the man who knew how to study, could be carried to success.

It must be the aim of the professor to extract from the first scheme of the pupil everything which it can give. He will avoid substituting what he himself thinks the best solution for the solution of the pupil, trying only to point out the defects of the pupil's scheme and to suggest the best way to correct them. The purpose of this is to familiarise the pupil with the constant fight against adverse conditions. Is not the architect most of the time trying to get the best results in spite of conditions which prevent the employment of what he considers the best solution of the problem?

In this respect I differ from those educators who

think that the method of requiring the student to make preliminary sketches, and to hold him to the main feature of his sketch, is an inefficient scheme. I think this method is valuable for three reasons :

(1) A pupil who begins a problem without a preliminary sketch will spend three-quarters of the time allowed on this problem experimenting on different schemes without ever really studying one. This is missing the aim of school competitions, which is not to arrive at the best solution of any particular problem, but to learn how to study any problem.

(2) In trying to improve a poor scheme the pupil makes a greater effort than he would if you gave him from the beginning the right solution.

(3) The pupils, working together and not obliged to keep to their preliminary sketches, arrive after some time to have all the same scheme, which is either that of the most brilliant pupil among them or the one that the instructor has pointed out as the best solution. Thus they lose one of the most valuable benefits of school study, which is to see the different solutions possible under the same programme.

How is the study of design to begin?

It has been thought for a long time that the study of architecture had to start with what is called Vignola, or the Five Orders, the pupil copying the plates and then trying to memorise the endless list of models or parts accepted by the author as standards of beauty.

The pupil was then supposed to know classical architecture. One may read in nothing less than the Report of the Committee on Education of the American Institute of Architects sentences like this : " With a thorough knowledge of the Orders and their application in Greece and Rome, one is in a position to understand the varied expressions of the Renaissance in Italy, in France, in England, in Spain and in her American possessions, and here in the United States."

I wish it were true, and that after a thorough study of Vignola a pupil could understand so many beautiful things. You will allow me to put in parallel with this quotation one taken from Choisy's *History of Architecture* :

" In construction, what is Roman in the Italian Renaissance consists only in the few antique methods which had survived all through the Middle Ages—the construction with brick and small materials, and the idea of building the structure independently of the ornament which decorates it. The artificial monolithic construction of the large Roman buildings was impossible. The imitation then bears only on the ornamental. It seems that Vitruvius, whose writings were never entirely forgotten, could have been followed as a guide in the choice of proportions and types ; in fact, Vitruvius was very little consulted in all the creative period. The first edition of his book was issued only in the last years of the fifteenth century."

As for the Renaissance in France, there is a cen-

tury between the introduction of motives from Italian sculpture, which is the beginning of the Renaissance, and the period of Henri II., when the canonical proportions of the Orders, such as Vignola understands them, were adopted. It is necessary to know something more than the Orders to understand the Renaissance, for in all the countries where it developed successfully it did not change the existing architecture, but introduced, timidly and awkwardly at first, a few forms borrowed from antiquity, but very remote from the types of Greece and Rome. It is a fact that the knowledge of the art of antiquity is much more necessary in a study of the Romanesque or Gothic Art than in a study of the Renaissance—at least for those who think that a tin cornice hung to a building is not enough to make this building Greek or Roman.

Vignola, as well as the other theorists of the Renaissance, had for what was known of antiquity a more enthusiastic than critical admiration. You will note that he lived two centuries after the beginning of the Renaissance in Italy, and therefore after the production of the real masterpieces. His book was inspired by the only work on architecture which had come down to us from the ancients, and therefore being unique was considered then as the essence of antique art. I mean the book of Vitruvius in which the absence of the original plates has made the reading of certain parts absolutely impossible, and the interpretation of other parts left to the fancy of the translator. There is, at least, no doubt that it is an inferior work, trying to set forth the principles of the Greek architecture, when this architecture had been dead for almost four centuries, and was known but little in Rome.

The architects of the Renaissance were most of the time at a loss to make anything out of it. The only thing which was of any use to them was a sort of tabulation of the proportions of the Doric and Ionic Orders, which they tried to develop into a system in applying it to the fragments which were found in the ruins of Rome. Thus each author established types of the Orders, arbitrarily fixed at five, where Vitruvius himself recognised only three and even two Orders, and the corresponding types are very different from those described by Vitruvius, or, more generally, from Greek or Roman types.

For instance, the proportion of the Doric Orders is fixed by Vitruvius as being seven diameters, while the Renaissance writers give it as being eight diameters. This will be enough, I suppose, to show that in studying Vignola we must know that we are studying simply an arbitrary type selected among the hundreds of types created by the Renaissance, and something entirely foreign to Rome or Greece. This would be small harm ; but, contrary to the artistic sense and to Vitruvius himself, and thanks to this table of proportions, the idea became predominant that the proportions were something immutable something which can be mastered once

for all, and after acquiring a "thorough knowledge," as the Report of the American Institute says, "you are in a position to understand the varied expressions of the Renaissance." It is in this that lies the main evil of the teaching of the Orders as a basis of architecture. This teaching substitutes for the culture of this delicate sense of proportion the memorising of figures: it tends to make of the designer a sort of engineer, working with formulae and not with his feeling for beauty, giving to the work of all this same monotonous aspect which makes one wish for more originality and less correctness.

It is necessary to have in mind that the study of proportions is very different from the study of the Orders. The study of proportions is essential, as it pervades all design under its three forms: of proportion in regard to destination; proportion in regard to harmony of form; proportion in regard to the unity of measurement or to the real size. The first one is the basis of all designs; the second, of all beauty; and the third, of scale: they are all three usually spoiled in the student by the early and unintelligent study of the Orders.

Knowing the uselessness of this teaching of the Orders by means of figures, why is it that in so many schools and offices it is still employed? It is, perhaps, because it is easier than giving a course on the theory of the elements of architecture. It is also because there is no book in England on the subject. The defenders of this system advance that it is an easy way to make the pupil practise architectural drawing and acquire a sense of the proportions. If it is an exercise in drawing, the memorising is useless: and as to teaching the proportions, you can easily see how little it answers this purpose in giving to a good student of Vignola an elevation to design without columns.

The proper study for the beginner is, as I said, the study of the elements, always represented in plan, section, and elevation, such as walls, doors, windows, porticoes, vaults, &c. A constant application of these elements in small designs, which will be very crude in the beginning, will soon give to the pupil the instinctive sense of his deficiency, while at the same time he will be familiarising himself with the use of those elements.

The study of the elements brings us to the study of theory in architecture. What must this be, and how much of it should be given?

If this theory is simply the study of the elements of which we spoke a moment ago, enabling the pupil to use these elements intelligently with regard to their origin and their development during the different historical periods, it cannot be too much encouraged. But in regard to the teaching of theory of composition, or of pure aesthetics, I must confess I do not like to have it given as a series of lectures. I think it ought to be given exclusively by the men who supervise the study of the problems, and during the criticisms of these problems. It is only then that the principles of design cease to be mere words

and take some life from the application which is made of them at the time. In short, it is in designing that the theory of design must be learned by the pupil. It is the only way to keep aside from the doctrinal tendency. Guadet used to say in his lessons, after having shown the theory of the origin and logic of certain forms, "You will find numerous exceptions to these rules, and some of these exceptions are masterpieces, universally admired; and you must remember, when on one side you have a theory and on the other side a masterpiece, it is the masterpiece which is right."

Guadet showed by this that he was an architect. Had he been only a professor, he would not have hesitated to condemn wholesale a complete period, to avoid spoiling his theories.

The other trouble of giving too much theory to the pupil is that to any theory another one equally plausible can be opposed, with the same apparent logic: like the lawyer in one of the modern comedies, who, being appointed District Attorney, proves the guilt of a defendant who was his client a short time before, by simply reversing the argument which he had used to establish his innocence.

The man who speaks *ex cathedra* appears usually to be right, but if he has to demonstrate his theory by improving a poor study, he will likely be less absolute in his criticisms, and this is why, contrary to the opinion of some, I believe that theory should not be taught independent of the practice of design.

It is useless, after this, to add that I am far from being enthusiastic over the so-called courses of aesthetics, where the good and bad are defined by limits too sharply drawn to be in accord with the facts. Those I have had an opportunity to read are usually absurd, even when written by men of such literary note as Ruskin. The only use of such books is for people who wish to be able to talk about the Fine Arts and place some decisive remarks in or out of place. The best to be said in their favour is that nine-tenths of their written matter are made up of sentences so vague that one cannot get much harmed by them.

To sum up, the course of theory must be confined to a study of elements, given during the first and second years of the course, then to that much of theory of design which is given to criticising the problems, and finally by a careful selection of the programmes on which the problems of design are based. To compose the programmes, to grade them according to the development of the students, to make them sufficiently clear, here is the main function of the Professor of the Theory of Architecture in the *École des Beaux-Arts* in Paris, and it has never been thought to be a sinecure.

There is another question which presents itself in connection with the teaching of design. It is the question of archaeology. Shall the teacher favour the use of, or exclude, the historical styles? The Report of the Committee on Education of the Architectural League of America was asking, can-

didly, I think, "What is the attitude of the several schools toward the various styles, *i.e.* do they all, or any of them, teach that there are one or more styles which are sound and logical, while there are others which may or may not be interesting from an archaeological standpoint only? If so, what?"

There is no doubt in my mind as to the answer. The question of the styles must be absolutely excluded from the course in design: this question belongs properly to the history of architecture, and, of course, for the historian, there is no "attitude" to take; for all the styles are interesting, all of them being the expression of an historical period.

Before studying these different expressions of architecture, I think it imperative that the students be made familiar with the elements of architecture. For one who has not had this necessary preparation the history of art becomes archaeology: that is to say, a science extremely interesting, but non-creative, and powerless to stimulate the mind toward new works of art—a science made for the scholar, not for the architect. In asking the above question, the Committee on Education had very likely in view the teaching of historical styles in relation to their use in designing; and when I say that it must be excluded from the teaching of design, this requires some explanation. What I mean is that the purpose of this teaching and its aims should be to make the student work his *own* solution on a programme selected as much as possible from among those that he may be called upon some day to build, or of which he can see in the city some solution. The programme once given, the pupil must be confirmed in the idea that he is not expected to make a façade like such or such monument, a plan like such or such other, but that he has to comply with the conditions of the programme given. It may happen, and it does often happen, that the solution which he finds resembles one of the historic types and this is not surprising, for the number of types is limited. If, then, the professor shows to his pupil documents pertaining to these buildings, points out the ingenuity spent by others in the solution of a similar problem, the differences between the historic type and the one called for by the programme, on account of modern conditions and customs—all this is excellent, and it is well within the function of the teacher.

But this is not "taking an attitude toward such or such style," other than this: the teacher will have to make the pupil notice that the masterpieces of the past are not adapted to our needs, if they are still acceptable to our taste, educated by modern culture to the appreciation of archaeology. He will have to point out the difficulty of "putting new wine in old skins," for this is the great dilemma of the modern architect. We are taught to love and admire the forms of the past, but our needs and manners of life call for other forms. We have no longer this charming ignorance of the past which permitted the architect of La Cancellaria or of

Blois to believe in good faith that he was imitating Roman architecture when he was farther from it than the Romanesque monastic builder. Alas! we know better, thanks to the photographs, to the multiplicity of books, to travel, what the architecture of the past centuries was, and how seldom it applies to our modern problems. We must soon recognise that what we are borrowing from the past is almost always a form void of spirit and that it is our task to give it new life.

This life, which makes a certain work of a period more characteristic of this period than other contemporary buildings, is obtained only by an intelligent submission to the needs of our time. We touch there upon the highest function of the teaching of design: the artistic morality of the architect, morality higher than the simple honesty which is called professional ethics.

We have to give to the pupil this artistic conscience, not satisfied with material success only, but seeking always its improvement, with the best reward: the consciousness of continuing the work of ages. This honesty is not willing to appropriate the work of others or to violate modern requirements in order to make them fit a mere pleasing form. This honesty prefers to run the chance of failure in experimenting, rather than follow established precedents, knowing that it is only through mistakes and faults that, little by little, a new art is formed, and that it is by the sacrifice of the individual that progress is made.

It requires a great deal of courage when in almost every country architects are satisfied, or resigned, to flatly copy the past. It has been said, "In Munich they imagine utilitarian Parthenons; in London, to answer to the wholly modern needs of a club, you will meet old acquaintances—the Farnesi Palace, the Library of Venice, the Colonnade of the Place de la Concorde—all these copied, as from a cast, to be more faithful." . . . I am far from advocating renouncing the forms bequeathed us by the past. . . .

First, it is impossible, just as it would be to renovate all the words of a modern language, which are themselves transformations or deformations of radicals whose origin is lost in the darkness of philology. One does not cast away in a day the patrimony acquired by centuries of labour, even if he wants to do so.

The architectural forms, which are like the words of our language, are transformed very slowly, and without much regard for the rules which we should like to establish. But what remains in our power is to use these forms in giving expression to our own ideas and not to those of our fathers. The vocabulary of Stevenson or Bernard Shaw is not very different from that of Sterne or even Milton. Nobody, however, fails to recognise the differences between these men.

But it is a very frequent belief, even among the most prominent members of our profession, without

speaking of the laymen who cannot do better, that it is the decorative form, the ornament, the mouldings, columns, sculpture, which constitute the style in architecture. They think that the use of a Roman order in a building makes of this building a work of antique architecture: that a skyscraper is Greek, because its author has placed on its steel skeleton some fragments of the Erechtheion. This shortsightedness must not come into account in the teaching of design. The man who teaches must know that what constitutes architecture is not the detailing, although it adds some charm and interest to the whole: that the Basilica of Constantine, on which not a column, not a moulding, not a sculptured frieze remains, is nevertheless unmistakably Roman and, besides, a masterpiece; and, also, that the detail is the private field of the pupil into which the teacher should not intrude, if he does not want to make of the student of the future a bad copy of the artist he is himself.

I know that this idea of the secondary importance of the detail is disconcerting. I felt this myself when one of my masters, trying to impress it on me, told me that it was possible to build a Romanesque church using only Greek detail. Since, I have realised the significance of this idea, and when I have criticised severely the work of a pupil who was designing a schoolhouse in Greek architecture, it was not because he was using brackets or pediments, but only because he had forgotten that one of the first requirements of a school is to admit widely the light into the classroom, and in order to imitate a beautiful temple of the fifth century B.C. he had left out the windows.

And this brings us back to the principle from which we started, that the teacher ought not to prescribe, or proscribe, such or such a style: that he can use them all as examples, yet never lose sight of the fact that he is preparing men to bring their contribution to the art of our time.

When all these subjects, knowledge of the elements, method of study, science of proportions, knowledge of the historical developments of the types of building and of the elements of decoration, have been sufficiently developed in a course of study covering several years, by men able to do it properly—that is to say, at the same time men of culture and artists—shall we expect all the pupils to be good designers? Far from it: there is still another part of the study which cannot be given in the school: for instance, the use of materials in accordance with their physical and æsthetic qualities; the knowledge of deformation through perspective of a geometrical design, &c. This part will have to be acquired either in another architect's office or from the experience of the student himself, who will thus gain his knowledge at his own or his client's cost. The school would be wrong in trying to give what can be expected only from the practised, for it would be necessarily given in a superficial and unsatisfactory way.

Another complement to the education of the designer is, of course, travel.

Even with all this, you rather expect that the pupils from the best schools will have varied talents. Architecture is a fine art, and that is enough to explain that some pupils will have wonderfully used the teachings given them, while others will remain mediocre all their lives. All we may hope for is that through an intelligent system of teaching design this small number will produce artistic work later on, that the majority will produce correct work, and the remainder will do not so badly as if left to their own initiative.

EXCAVATIONS AT EPHESUS AND RESTORATION OF THE CRESUS (SIXTH CENTURY B.C.) STRUCTURE.

To the Editor JOURNAL R.I.B.A.—

SIR,—I should like to be afforded space to answer a few of the points touched upon by Mr. R. Pheno Spiers in his review of the above in the *JOURNAL* of the 20th March last.

Before entering upon the architectural portion of his remarks I should like to correct a slight error he has made. It is Mr. Hogarth who deals with the pottery, and Dr. Cecil Smith writes upon the extremely interesting collection of ivory statuettes found near the central basis and beautifully illustrated in the volume with the text. Replicas of these and many originals of the finds are now shown in the British Museum, and are well worthy of examination and study.

Mr. Spiers states that "Temple 'C,' the last of the three primitive structures, was amphiprostyle with two columns-in-antis." This cannot be definitely stated as such, for, although we found no remains of a peristyle, it does not prove that the architects Chersiphon and his son Metagenes did not surround the walls of their temple with one of noble proportions, which would at that early date cause this temple to be accounted one of the finest buildings of the period; also we found that all the ground exterior to the "C" walls had been cleared away to a considerable depth below its interior pavement level and the finished courses of the exterior of the walls. This ground was replaced by, first, Roman or Byzantine concrete, and, secondly, by the massive wall foundations of the Cresus structure and the peristyle foundations beyond. I cannot help fancying that Temple "C" was in use while "D" was being erected, which would give a reason for so much of the walls of this, and Temples "A" and "B" within, not having been entirely swept away. The drain passing through the western wall of the cella of Temple "D" helps to confirm my surmise.

Mr. Spiers is at a loss to understand why I have based the Archaic Restoration on Pliny's description of the number of columns. The evidence on the site accounted for 100 in the peristyle (including

four in *antis*) and six additional in the *pronaos*. No remains even of foundations were discovered on the site of the *posticum*, nor were any bases found in the *cella*, but within the latter a straight joint was disclosed, which would have a reason, if columns stood by it to support the beams of the ceiling and roof. Under these circumstances satisfactory positions were found for two columns in the *posticum* and 19 in the *cella*. Pliny can be read 100 columns, 27 given by kings, meaning those only of the *peristyle*, or 127 in all.

Besides, it was conclusively proved that the Hellenistic columns and walls were erected exactly upon the site, and on portions of the structure not removed of the *Croesus Temple*: hence the number of columns agreeing with one another. The 27 columns mentioned by Pliny as the gifts of kings would refer only to the Hellenistic Temple, as Herodotus states that the "greater number" of the pillars of the (Archaic) Temple were votive offerings made by *Croesus*. Herodotus also compares the Temple of Ephesus and Samos with the buildings of Egypt; so that even in his day the fame of the *Croesus* structure must have been a household word. It was from Temple "C" that the Ephesians stretched the rope to their city to protect them from the conquering *Croesus*, who shortly after became their great patron. It is also probable that the 36 sculptured columns of the Hellenistic temple were duplicates of the earlier design.

How short a time we have known that there were at least five rebuildings of the Temple. Pliny and Vitruvius could not have known of this, otherwise they would have told us. They were not scientific archaeologists, but wrote about what then existed and its traditional history, which latter generally ignores rebuilding. This can only be found by reference to contemporary writers or, as in this case, to the structures themselves, and what makes it more difficult is that each carried on the traditions of the earlier.

I am surprised to note that Mr. Spiers still clings to his idea that there were square or narrow-shaped L piers (how would Pliny have described them?) at the salient angles. Would he also have them for the inner rank of columns in the *peristyle*? He refers to the *Heraeum* at Olympia and the *Erechtheum* at Athens, but neither of these is a suitable comparison. The general design of the *Heraeum* was Doric, built of coarse stone, and was peripheral hexastyle, without an inner rank of columns to the *peristyle*, and the walled enclosure terminated at the ends, like Ephesus, as *amphiantis distyle*, no square or L-shaped piers appearing on the plan—in fact, somewhat like our Temple "C," only Doric instead of Ionic, but the walls of the latter were beautifully built and finished with yellow limestone.

The *Erechtheum* is a walled enclosure with three attached porticoes, each projecting from walls the full width, or more, of the portico. We have no surrounding *peristyle*, nor are the exterior angles

of the porticoes supported by piers. Certainly the responds against the walls are pilasters, their faces towards the columns are the same diameter as the columns just above their bases; thus I am unable to follow Mr. Spiers when he refers to these as narrow pilasters. True, their other two faces are narrow, because they have only a slight projection from the walls. This, however, is the usual custom for pilasters; certainly in the case of the *Erechtheum* they do not return the full width along the flanks, but only the depth of their projection from the wall, thus showing a narrow face on the flanks, and not to the columns.

Also, the *Erechtheum* architrave is the full width of the columns; but at Ephesus it is not more than two-thirds (measuring at the base of the shafts). This is caused by the clever design of the bracket capitals, and is probably a survival of the wooden architrave, and a great saving in material. I cannot agree with Professor Lethaby when he suggests that the architrave might have oversailed the abacus—there could be no reason for this, for the thickness of the saddle of the capital was not arbitrary and could have been increased.

Now, if a pilaster of the narrow width of the thickness of the architrave were carried down, even attached to a solid pier, it would complicate the design at the base (not to mention the capital). Such a proposal would be fatal to the beauty of the vistas; besides, the spacing of the lateral intercolumniations is opposed to this arrangement. L-shaped piers would make the second last spacing the only wide one and destroy the poetry of the design. As Professor Lethaby remarks: "It is evident that the last two bays at each end were made wider in preparation for the very wide columniation of the fronts." I should have had great pleasure in adding an Ionic dentil course, as Mr. Spiers and Professor Lethaby suggest; but if this did occur it would have to be placed upon, or more probably set back, to the point at which I show the bed-mould, as the sunk soffit of the corona was found to be continuous. I prefer to suggest that the corona in wooden construction represents a fascia, probably decoratively painted, covering the ends of the beams; this I have removed in the wooden construction shown to the entablature of the restored cloister (the pillars, by the way, are suggested of marble).

Mr. Spiers seems to have overlooked the fact that the capitals were in reality brackets. The proportion of the abacus over the volutes supported the lateral architraves, and the central portion (over the saddle) the transverse architrave which passed over the inner rank to the walls. I also suggest that the face of the entablature as seen on the exterior up to the top of the corona is similar on the inside and also to the inner rank. This would make the corona a continuous corbel course, materially reducing the span of the wooden beams of the roof.

If the ceiling were lowered there would be little

architrave showing to the inner rank, and independent beams would be required, and not the ties to the roof, which are a necessary part of the construction. The feather edge Mr. Spiers mentions is not less than 2 feet in thickness above the inner side of the wall over the outer rank of columns, so under these circumstances there is ample allowance for the timbers to rest and unite on the outer wall. Now I come to what Mr. Spiers calls the peculiar break in the pediment. This is only the returning for a short distance of the carved parapet to the flanks, and acts as a substitute for the squaring of the usual acroteria. The parapet at its rear measured about 2 ft. 6 in. in height. Surely this is an excessive height to have been carried up the pediment. (This to Temple "C" at Selinus could not have been more than 18 inches.) Besides, it would necessitate high and heavy acroteria, and would greatly increase the width of the tympanum, which is already amply wide enough, and if broadened would greatly raise the acroterium at the apex, especially as seen from the rear. To obviate this last and the high parapet up the pediment Mr. Spiers suggests that the inner side of the gutter was raised considerably, or rather the gutter deeply sunk to a depth of about 18 inches in the solid marble. No vestige of such a form was found, but I certainly surmise that the terra-cotta tiling did not come right down to the bed of the gutter, the last few courses being represented by solid blocks of marble. This would preclude such a catastrophe as he suggests might occur if there were a sudden thaw. Snow and frost are known in this portion of the Levant, but these are not to be dreaded like sudden hurricanes and thunderstorms with torrential rains, sharp and short in duration, often leaving devastation in their train.

Mr. Spiers misunderstands my meaning of a low-pitched roof. I consider a low pitch is when tiles will remain in position without the aid of pins or nails. The fragments of tiles found were innumerable and of excellent manufacture, and in such positions as to show they were anterior to the Hellenistic Temple. Marble tiles were evidently replicas of a stereotyped design.

The angle given to the pediment is 18° . I did not venture to make it less as the façade is so wide and low. Unfortunately we have no octostyle pediment of such early date remaining to give a precedent.

I hoped Mr. Spiers would have drawn attention to the beauty and variety of the bases, which I should like to see revived in modern work. Why always have the ordinary simple attic base, the very portion the passer-by looks at? Also one can see by these capitals how a three-fourth attached column may carry complete pulvinares of the volutes, and not, as our modern designers do, blindly follow the Renaissance by burying one-fourth of the capital in the wall, which to my mind is shirking the problem, as well as being altogether unsightly, and surely incomplete in design.

A. E. HENDERSON, R.B.A.

REVIEWS.

ARCHITECTURAL SOURCES IN NATURE.

Prof. M. Meurer, "*Vergleichende Formgeschichte des Ornamentes und der Pflanze*." Dresden, 1909.

In the early part of the last century Inwood wrote a pamphlet entitled "Of the Resources of Design in the Architecture of Greece and Egypt and other Countries, obtained by the Studies of the Architects of those Countries from Nature." He argued that "we cannot contemplate with too high an admiration the beautiful productions of the ancient architects of Athens: and possibly we might aspire to elevate ourselves to the same high intellectual perfection by zealously striving to discover and to pursue the course of study by which these architects advanced." The architect's first effort, he continues, was to learn what was known up to his own time, and then he endeavoured to enter on the resources of nature and "to open the volume of nature's designs." . . . "Their course of study may become ours, and we ought to emulate to produce other and equal varieties of design to the architects of those periods whose works so justly merit our wonder."

This study was the observation of organic forms in nature, which were, he considered, the sources of the more abstract forms, not entirely conditioned by structure, found in Greek architecture. His comparisons are, in the main, between these architectural details and shells, crystals, fossils, plants: and although at the present day probably not one of his detailed relations would be admitted, yet his instances are interesting as examples of structural forms in nature. A symbol of this preoccupation of his may, I think, be found on the perspective plate of his Erechtheum, where an Ionic capital is brought in which has volutes adapted from the fossil ammonite. His theory and intention exactly anticipate those of a learned German archaeologist who has just issued a very large volume devoted to the same double purpose of showing that one of the sources of ancient art is this everlasting spring of which we parched moderns may drink and be refreshed, and also of tracing the actual links between nature and ancient art.

Prof. Meurer, of Dresden and Rome, who has sent me a copy of his fine work for review, had for many years made a minute study of Greek ornament. In the Catalogue of British Museum Sculptures (1904) he is referred to as having first identified a capital which has been in the Museum for a century as having come from the Nike Temple. In the meantime he has been drawn more and more into special research as to the origins of ornamental design; the origins in antiquity behind the developed ornaments of later schools, and origins behind antiquity itself in the great all-source, Nature. He has published a large series of wall diagrams,

prepared especially for art schools, of selected plant forms drawn in a simplified, analytical way which he rightly thinks should prove useful in modern design. Undoubtedly they *should* be stimulating if we had the ability to absorb such suggestions in due measure, as the Greeks did, and the Japanese do. But, alas! there is a subjective basis for art as well as outward sources, and that twisted mirror, the modern mind, is amply able to distort sweetest nature into repulsive forms. Certainly, the "New Art" of the last twenty years has been at least a refraction, if not a reflection, of nature.

The volume now issued contains some 600 pages of text and 2,000 figures, large and small, in which the author sets out his conclusions as to the historical derivation of ornament from plant-life as shown in the art of Egypt, Assyria, Greece, and later ages, and I may say at once that these conclusions seem in the main to be demonstrated in a way that has never before been done. The difference between Inwood and Professor Meurer is that between an old and a modern dictionary, between mere guesses at etymologies and the actual tracking down of a word through all its stages. The instinct that architectural forms might be explained if we could reach back to their origin was always right, but it was only when a vast mass of facts had been collected that it became possible to follow a firm trail back to the point of departure.

Even while writing this, and having in mind the guesses of the past, I feel how visionary much of this sort of theorising on origins may be, for there are not only false analogies but many double and complex origins; but with all this Professor Meurer's book for the most part, I am convinced, rests on firm evidence.

One division of his work is a full and valuable study of the acanthus: first the natural leaves, bracts, and buds, which are then compared with paintings on the white Athenian vases, and with architectural carving, which is followed through Roman and Romanesque art. The influence of acanthus foliage is traced still beyond even into Gothic sculpture, where the "crocket" forms of the early caps evidently derive from the old tradition—now in the very blood of art for over a thousand years—of bending over the tips of acanthus leaves. Ferns and other local plants modified the detail, but the architectural form was classical. It is somewhat curious to note that Gothic carving, which began with the acanthus, ended with the allied thistle—is this a case of atavism? In this study Professor Meurer shows that the acanthus plant first appeared in art on the white funeral vases about the middle of the fifth century. A great number of these vases have figures painted on them on either side of a grave stele—such steles of an early date, terminated above with a palmette ornament like the well-known antefix of the Parthenon; but many of the white vases show a bunch of acanthus taking its place while other leaves of the plant spring out around

the base of the stem. A very good example is shown in the illustrated catalogue of the late Exhibition of Greek Art at the Burlington Fine Art Society's Rooms. Allusions by classical authors show that the acanthus was a funereal plant associated with the grave much as Orientals to-day associate the cypress, which may be seen carved on many a Turkish tomb. Even Vitruvius, it may be recalled, makes the Corinthian capital have its origin in a suggestion derived from an acanthus plant growing by a grave. The figures given by our author fully illustrate the first coming in of acanthus foliage; he suggests further that some of the grave-stones were round, and the transition to the Corinthian capital would thus be more of a spontaneous growth of the carved foliage than an invention. On the capitals, as on many of the steles, the acanthus is placed as a sort of calyx containing springing scrolls. The first architectural use of the acanthus was probably made at the Erechtheum, where the anthemium ornaments spring from calyces formed of bracts of acanthus. The very rudimentary acanthus ornament of the architrave of the great north door is a row of simple bracts.

Another division is devoted to the origins of the Ionic column, and Professor Meurer's analysis leaves no room for doubt that it is a transformed Egyptian lily-pillar, with possibly some Assyrian elements. In the early Ionic capitals of Neandria the scrolls (petals) are still divided and spring vertically, while between them is a palmette representing the other petals. Vestiges of this treatment continued long, as in a small capital in the British Museum figured by Inwood. The divided scrolls were also retained in the typical Ionic Anta capital, like those of Priene in the British Museum. The earliest known example of this kind of capital is one found at Megara illustrated on p. 505, but there are archaic prototypes in Cyprus (p. 493), and in these even the triangular petal of the original lily design still remains. In the Egyptian lily capitals there are curious appendages falling out of the volutes on either side; these seem to furnish the origin of the "honeysuckle" ornaments in the full Ionic capital which fill the inner angles against the volutes.

Dr. Evans, in an article in the *Hellenic Journal*, 1901, on "The Mycenaean Tree and Pillar Cult," anticipated from another point of view much that is laid down here as to the Egyptian prototypes of the Ionic order, and he gave a series of intermediate forms from Mycenaean sources. He speaks of "the capitals derived from the Egyptian lotus-type," and of the "vegetable columns of Egypt derived from forms of the lotus and blue water-lily," and says that they were in their nature sacred. It is this sacred element derived from far-off ages when pillars represented Deity—an offshoot of which may, I think, be found in the Caryatid, and the terminal figures of Hermes—that underlies the conservative and reverent regard of classical archi-

fects for the Column, which, through the ages, has been the very type of architecture.

W. R. LETHABY [F.].

SANITARY ENGINEERING.

Sanitary Engineering: A Practical Treatise on the Collection, Removal, and Final Disposal of Sewage and House Waste, and the Design and Construction of Works of Drainage and Sewerage. By Colonel E. C. S. Moore, R.E., Third Edition, revised and in part re-written by E. J. Silcock, M.Inst.C.E. 88. Lond. 1909. 2 vols. Price £2. 2s. net. T. T. Batsford, 94 High Holborn, W.C.

Owing to the death of the original author, Colonel Moore, this standard work has been enlarged and revised by Mr. Silcock, and now appears in two volumes instead of one: Vol. I. dealing generally with the constructional work of sewers and drains, and with the appliances, materials, and apparatus used in conjunction therewith; and Vol. II. with the different methods of the disposal of sewage, together with various Government recommendations and regulations. The first three chapters of Vol. II., however, should have been placed at the end of Vol. I., as they deal with the general subject-matter of that volume. A still better arrangement would have been to divide the work into three volumes, the first dealing generally with the construction of sewers (and containing Colonel Moore's tables of velocities), the second with the construction of house drains and with the various forms of sanitary apparatus, and the third with the disposal of sewage, and to have sold each volume independently of the others. In that case the second would have been the one of most use to architects, the other two concerning chiefly the borough engineer, dealing with the drainage of large areas, not of single houses, and for whom undoubtedly the work is written.

The books are well printed (with remarkably few typographical errors for a work of this size), and are replete with excellent illustrations and with plans and sections—to scale—of various appliances and constructional details, a precedent that might well be followed in other technical works. A few errors still appear after revision, as, for instance, the recommendation that waste pipes from baths should always discharge open into cast-iron heads. This is not allowed in many London districts. Several references are still made to the old London "vestries," which gave place nearly ten years ago to the "boroughs." And the chapter on sanitary apparatus for houses might have been more completely brought up to date; for example, the modern porcelain-enamelled bath, which is so generally used at the present day in better-class work, is dismissed in a couple of words. In a few places also there exists slight confusion in the same chapter between the descriptions of house drainage and sewer work.

The work contains a long and most interesting

discussion on the advantages and disadvantages of placing an intercepting trap between the main drain of a house and the connection to the public sewer. There is also an excellent chapter on "Destructors" at the end of Vol. II., and in connection therewith a further useful chapter on chimney-shaft construction.

The revised work forms a most useful and valuable addition to the sanitary engineer's and borough surveyor's library, and the architect will find in it practically all he requires to know in the matter of house drainage and sanitary appliances, together with information as to the various methods of sewage disposal in those districts where public sewers are not available.

DIGBY L. SOLOMON, B.Sc.Lond. [A.]

STEEL CONSTRUCTION.

The "Illustrated Carpenter and Builder" Technical Manuals. No. 19.—Steel Construction—An easy Introduction to the Science of Design and Building in Steel. London: John Dicks Press, Ltd., 8, Temple Avenue, London, E.C.

This little book is intended to serve merely as an introduction to the study of steel construction, and endeavours to explain its principles without any excursions into the field of mathematics. In a series of chapters the methods of forming the various parts of buildings in which steel is employed—beams, columns, roofs, floors, and the rest—are described; and it is shown how nowadays many structures are erected around a skeleton of steel disposed in as complete and logical a fashion as the bones in the human body. A work of this kind, that can explain all these things to the uninitiated in a clear and straightforward way, should be a very useful one. Unfortunately, in an excess of zeal to impart information to those who have not had the advantage of a liberal education, the present book sometimes overshoots the mark; as may be seen, for instance, in the attempt to explain the nature of bending moments without mathematics, without diagrams, and unaided even by the use of logical argument. It is unfortunate, too, that the work should have appeared without the name of any author, or even editor, on the title page. A perusal of the preface, however, discloses the information that the first eleven chapters were written by Mr. Herbert Chatley, B.Sc., and are reprinted from the "Illustrated Carpenter and Builder." The twelfth chapter, an interesting one, describing the construction of the "Morning Post" offices and Messrs. Selfridge's building, was compiled on information supplied by Mr. S. Bylander, engineer to Messrs. Waring and White. And the last chapter, on "cleaning and painting steelwork," which, by the way, seems a little out of place in an elementary work of this kind, consists of extracts from a paper read before the Paint and Varnish Society by G. Depierres.

Cork.

HENRY H. HILL.



9 CONDUIT STREET, LONDON, W., 12th June 1909.

CHRONICLE.

Special General Meeting (By-laws).

A Special General Meeting for the consideration of the Draft By-laws under the new Supplemental Charter was held on Monday, 24th May, and twenty-seven out of the eighty-three were disposed of before the Meeting adjourned. The result is recorded in the Minutes printed on a later page of the present issue. The debate was to have been resumed at the conclusion of the Business Meeting on the 7th June; the business on the paper for that evening, however, occupied the whole of the two hours usually devoted to an Institute sitting, and at its close it was decided to further adjourn the By-laws debate to Monday, 14th June. A report of the discussion at both meetings will appear in the next issue.

The Annual Elections.

At the Business General Meeting of Monday, 7th inst., the Officers, Council, and Standing Committees for the ensuing Session were declared duly elected, in accordance with the Scrutineers' Report, as follows:—

THE COUNCIL.

President.—Ernest George.

Vice-Presidents.—Professor Reginald Blomfield, A.R.A., M.A.Oxon.; Alfred Wm. Stephens Cross, M.A.Cantab.; Edward Guy Dawber; James Sivewright Gibson.

Hon. Secretary.—Henry Thomas Hate.

Members of Council.—John James Burnet, A.R.S.A. (Glasgow); Max Clarke; William Adam Forsyth; John Alfred Gotch, F.S.A. (Kettering); Alexander Graham, F.S.A.; Edwin Thomas Hall; George Hubbard, F.S.A.; Henry Vaughan Lanchester; Edwin Landseer Lutyens; Meyvyn Edmund Macartney, F.S.A.; Charles Edward Mallow; Ernest Newton; Andrew Noble Prentice; Halsey Ralph Ricardo; John Slater, B.A.Lond.; Leonard Stokes; Paul Waterhouse, M.A.Oxon.; Edmund Wimperis.

Associate Members of Council.—Alan Edward Munby, M.A.Cantab.; Professor Charles Herbert Reilly, M.A.Cantab.; Herbert Winkler Wills; Arthur Needham Wilson.

Representatives of Allied Societies.—Frederick Batchelor, A.R.H.A. (Royal Institute of the Architects of Ireland); George Bell (Glasgow Institute of Architects); George Thomas Brown (Northern Architectural Association); Arthur Stanfield Dixon, M.A.Oxon. (Birmingham Architectural Association); Thomas Edgar Eccles (Liverpool Architectural Society); Mowbray Aston Green (Bristol Society of Architects); Percy Robinson (Leeds and Yorks

Architectural Society); John Watson (Edinburgh Architectural Association); Percy Scott Worthington, M.A.Oxon. (Manchester Society of Architects).

Representative of the Architectural Association (London).—Henry Tanner, jun. [F.].

THE STANDING COMMITTEES.

Art.—Fellows: Walter Henry Bierley, F.S.A.; Edward Guy Dawber; William Flockhart; James Sivewright Gibson; Henry Thomas Hate; Professor William Richard Lethaby; Edwin Landseer Lutyens; Edwin Alfred Rickards; John William Simpson; Paul Waterhouse, M.A.Oxon.—*Associates:* William Henry Biddlake, M.A.Cantab.; Arthur Thomas Bolton; Sidney Kyffin Greenslade; Thomas Georty Lucas; Walter John Tapper; Septimus Warwick.

Literature.—Fellows: Alfred William Stephens Cross, M.A.Cantab.; John Alfred Gotch, F.S.A.; George Hubbard, F.S.A.; Halsey Ralph Ricardo; Professor Frederick Moore Simpson; Professor Ravenscroft Elsey Smith; Richard Phene Spiers, F.S.A.; Henry Heathcote Statham; Charles Harrison Townsend; Paul Waterhouse, M.A.Oxon.—*Associates:* William Curtis Green; Herbert Passmore; Arthur James Stratton; Harry Inigo Triggs; William Henry Ward, M.A.Cantab.; Percy Leslie Waterhouse, M.A.Cantab.

Practice.—Fellows: William Henry Arkin Berry; Max Clarke; Alfred William Stephens Cross, M.A.Cantab.; George Hubbard, F.S.A.; Sydney Perks, F.S.A.; Alfred Saxon Snell; Henry Tanner, jun.; Thomas Henry Watson; William Henry White; William Woodward.—*Associates:* Edward Greenop; Edwin Gunn; Edwin Richard Hewitt; Harry John Pearson; Horatio Porter, M.A.Cantab.; Augustus William Tanner.

Science.—Fellows: Harry Percy Adams; Max Clarke; Bernard Dick-ee; William Dunn; Matthew Garbutt; Francis Hooper; Charles Stanley Peach; Sydney Perks, F.S.A.; Herbert Duncan Seales-Wood; Lewis Solomon.—*Associates:* Henry William Burrows, F.G.S.; Edwin Richard Hewitt; Alan Edward Munby, M.A.Cantab.; Digby Lewis Solomon, B.Sc.Lond.; Ernest William Malpas Wonnacott; Ernest Alexander Young.

Auditors.—John Hudson [F.]; Charles Edward Hutchinson [A.].

The Scrutineers' Reports giving details of the voting form part of the Minutes, pp. 563-64.

Mr. Hubbard's Motions.

At the Business Meeting of the 7th inst. the following motions were on the Agenda to be brought forward by Mr. George Hubbard, F.S.A. [F.]:—

1. That in the opinion of this Meeting the circular letter enclosed in the envelope accompanying the Voting Papers for Election of Candidates to the Council and Standing Committees does not correctly represent the policy of the members of the Institute, as embodied in an adopted report at a General Meeting held at the Institute on 4th March 1907.

2. That this Meeting desires that in future no circular letter be posted in the envelope containing the ballot papers, which has not first received the approval of the Council.

Mr. Alfred W. S. Cross, M.A.Cantab. [F.], had given notice that he would ask the following questions respecting the circular letter above referred to:—

1. Was the circular letter an official or a private note?
2. If official, who authorised the signatories to the circular to issue it?
3. By whose authority was it determined to vary the procedure relative to the Bill to be submitted to Parliament?
4. Is there any special power vested in the high officers of the Council to vary a decision of the General Body?

5. Do the officials consider that they are entitled to attempt to influence the voting by issuing a circular letter?

6. Are the signatories to the circular prepared to affirm that their action did not influence the voting?

7. If not, what interpretation do they put upon the concluding two paragraphs of the circular letter?

8. Otherwise, how do the officials justify their action in introducing conditions precedent to the application to Parliament for a Bill?

9. Is it not the fact that the Council should carry out a mandate of a General Meeting?

10. How is it possible for the Council to do this if the high officers determine upon taking an independent action?

11. Had the signatories to the circular letter contemplated the possibility that they might render the election null and void?

12. Will the signatories to the circular letter explain their reasons for influencing the Council to pass a vote of censure upon two of its members?

Mr. HUBBARD, in introducing his first motion, said: For some years I have been watching the development of the Registration Movement, and as each step in advance is made I am anxious to see that it is securely held and that no retrograde or back-sliding movement is allowed to hinder the fulfilment of the great aspirations of the vast majority of the members of the Institute. The growth of the movement for the Statutory Qualification of Architects is very shortly shown in the Reports submitted to the General Meetings on 3rd April 1906 and 4th March 1907, and in the resolutions which were then passed. These reports and resolutions represent the official adopted policy of the Institute, and, at this Meeting finds that that circular letter signed by the President, the four Vice-Presidents, and the Hon. Secretary does not accord with that policy. I hope that the Meeting will not hesitate to support the resolution of which I have given notice. It must be remembered that in the early days of the movement there were two factions in the Institute holding opposing views, and, in order to thoroughly investigate the question, the Council formed a Committee, known as the "Registration Committee," which was composed of members holding the opposing views, with the President of the Institute as its Chairman. The result of this Committee's work was naturally a compromise between the contending views, and this compromise is embodied in a report submitted to the General Meeting on 3rd April 1906. The ardent Registrationists relinquished the "pending proposal as to the registration of the title of 'Architect,'" as the Committee felt that unless the profession could approach Parliament with approximate unanimity there was little chance of getting any contentious measure passed. The Committee therefore recommended that at present the Institute should confine itself to attempting to obtain Parliamentary recognition of its membership; an attempt which it was believed would meet with very general support. The principles of this Report were unanimously adopted at the General Meeting held on 3rd April 1906, and the following resolutions were passed:—

1. "Resolved, unanimously, That the general principles of the Report and Recommendations of the Registration Committee, dated 29th March 1906, be adopted, and the details referred to the Council for further consideration and report to the General Body."

2. "Resolved, unanimously, That the Council be requested to take the necessary steps, when the scheme in accordance with the first Resolution is perfected and approved by the General Body, to apply to His Majesty the King for a Revised or Supplemental Charter, and to prepare and present a Bill to Parliament."

It was not till 4th March 1907 that the Council again reported to the General Body, and Section I. of their report

says: "The Council have held under their consideration the Report and Recommendations of the Registration Committee adopted in principle at the General Meeting held 3rd April 1906, and have the honour to report as follows:—

That the Institute should endeavor to obtain Parliamentary recognition of its membership, and later on it says in Section V. that "a Revised or Supplemental Charter should be applied for, and that, when this has been done, an Act of Parliament should be applied for as soon as practicable." Now I submit that the official statement of the President, the four Vice-Presidents, and the Honorary Secretary, in which it appears that, as soon as practicable, tests are thus practically united with the Institute, no opportunity will be afforded of considering the possibility of submitting a Bill to Parliament, as set out above with the adopted reports of the General Meetings of 3rd April 1906 and 4th March 1907, wherein it is shown that we are united and instructions are given to the Council to prepare and present a Bill to Parliament. The wording of the circular certainly implies that we are not united, but that when we are united an opportunity will be afforded of considering the possibility of submitting a Bill to Parliament. I am not asking this Meeting to express an opinion as to the motive which inspired the wording of the circular, or whether that statement was the result of accident or design. The question is one of fact and not of opinion, and I appeal to the Meeting on this account to support my resolution—viz., "That in the opinion of this Meeting the circular letter enclosed in the envelope accompanying the voting-papers for election of candidates to the Council and Standing Committees does not correctly represent the policy of the members of the Institute as embodied in an adopted report at a General Meeting held at the Institute on 4th March 1907."

THE PRESIDENT (Mr. ERNEST GEORGE). The Circular of the 10th May having been adopted and approved by the Council, it is practically the Circular of the Council. Its purpose was to represent the policy adopted by the Institute, and to record that the first stage, the granting of the Charter, had been attained, and that shortly it would be possible to proceed with the second part of the adopted policy. I assume that this motion is not brought forward in a contentious spirit, and that Mr. Hubbard has the interests of the Institute at heart and I appeal to Mr. Hubbard, in the best interests of the Institute and of our art, to withdraw his resolution without debate. A debate on a resolution of this kind must tend to much which is undignified and mischievous. We are here for the advancement of architecture, and not for recrimination. I trust Mr. Hubbard will take a large view of the matter and consider the general good. I shall be quite pleased afterwards to reply to the questions of Mr. Cross if he thinks suitable to address them to the Chair.

Mr. HUBBARD. I can assure you, Mr. President, that there is no animus at all in bringing forward this resolution. I have really and sincerely the interests of the Institute at heart, and I desire above everything connected with my profession to see an Act of Parliament applied for as soon as practicable in accordance with the adopted policy of the Institute. If this Meeting wishes me to withdraw my motion I will do so. I shall feel at any rate that I have done my duty in bringing to the notice of the General Body that there is in my opinion a contradiction between the adopted policy of the Institute and the policy which is set out above the President's name and that of the Vice-Presidents and the Honorary Secretary in the circular letter sent out with the balloting papers. I desire always to follow the lead of the President, but I would personally rather not withdraw the resolution, because, as it appears to me, this is not a question of feeling, it is a question of fact; and the fact is one which ought to be recorded without any ill-feeling towards anybody.

Mr. WILLIAM WOOLWARD [F], to be in order, formally

seconded the resolution, but said that if the signatories to the circular would at once state that Mr. Hubbard had misinterpreted the particular paragraph to which he referred, and that it was really their intention, as he gathered it was, to apply for an Act of Parliament as soon as practicable, the whole difficulty would be solved, and the debate might close at once.

MR. MORRIS B. ADAMS [F.] : What we have really to consider with regard to this circular is not what the Council exactly intended, but what is the impression this publication must have had upon the electors to whom it was addressed in connection with the ballot papers with which it was sent.

THE PRESIDENT : That is down as a question which is coming later.

MR. MAX CLARKE [F.] said that the impression the circular conveyed to his mind was that the signatories to the paper wished the remainder of the Institute to believe that they were practically uniting all architects within the Institute, and that then "an opportunity would be afforded of considering the possibility of submitting a Bill." What, however, he had always understood was that as soon as the Supplemental Charter was granted the Institute (or the Council who carried out the directions of the Institute) would actually promote a Bill in Parliament as soon as practicable. Though he fully agreed with the resolution, he thought the President's suggestion to drop it altogether was an extremely wise one. If the resolution were put to the Meeting he should vote for it. But if it passed, it would not do the slightest good to anyone. He therefore supported the suggestion that Mr. Hubbard withdraw the resolution.

MR. J. NIXON HORSFIELD [A.] said he hoped the resolution would go to the Meeting, and that it would be negatived. Mr. Hubbard had failed to make out his case. He had gone back into the ancient history of the registration movement, and had quoted from a report in which it was stated that it would be absurd for the Institute to go to Parliament for powers of any kind unless it could show practical unanimity among its members. The letter complained of complied with that report, saying that when we had practical unanimity in the Institute we could consider the question of going to Parliament. Mr. Hubbard had taken it for granted that we had already unanimity in the Institute.

MR. HUBBARD, interrupting on a point of order, said that Mr. Horsfield had misquoted the passages referred to from the Report. The document, as printed in the *JOURNAL* of 7th April 1906 read, "It is generally admitted by the advocates of the present draft Bill that the only chance of getting Parliamentary powers to carry out such a penalising proposal as the registration of the title of architect would be, (1) by placing the registration in the hands of a Board partly composed of members outside the Institute, though it is suggested that the Institute should be largely represented upon it; and (2) by exempting from its operations all the members of the Institutions of Surveyors and Civil Engineers. It is also generally admitted that the standard for admission to such registration would have to be a low one. The Committee believe that unless the profession can approach Parliament with approximate unanimity there is little chance, in the present state of public business in the House of Commons, of getting any contentious measure passed." Then followed the pith of the thing: "The Committee therefore recommend that at present the Institute should confine itself to attempting to obtain Parliamentary recognition for its membership, an attempt which, they believe, would meet with very general support."

MR. HORSFIELD, continuing, submitted that they had not got approximate unanimity of the architectural profession represented by the Institute. They had, he supposed, the majority of English architects in the Institute, and he should be sorry to hear that that majority were definitely

in favour of registration and prohibition. The steps which were outlined after careful consideration were gigantic steps. It had taken some years to achieve the first, that is to say, to obtain the new Charter; and having done so it was absurd to suggest that simultaneously, or immediately following, they should take the subsequent step of going to Parliament. They had, first of all, to gather into the Institute a large number of architects as Licentiates. When this was done the Institute, in his opinion, would stand much more firmly than any registered profession. If, however, these outside architects were not got in, the Institute would, as before, be unable to go to Parliament with any degree of reason. Mr. Hubbard, as he understood, did not object to the letter except in so far as it put unanimity before promotion of a Bill—that is to say, practical unanimity, for he should be surprised if they did have unanimity on the question of registration and prohibition. They had heard from professional men and knew it to be the fact that registration was ridiculously ineffectual without prohibition, and artists must be all agreed that art could never be registered.

A MEMBER : We must have come to some sort of understanding. Are we unanimous in desiring registration, or are we not?

THE PRESIDENT : That is not the question at the present moment.

MR. L. JACOB [A.] said that no possible benefit could result from this discussion, and moved that the question be now put.

MR. H. H. STATHAM [F.] seconded the proposal, adding that when he received the circular he simply read it as an expression that the Council intended to do what had been originally agreed upon, but that in their consciences they did not like to promise too much.

SIR ASHTON WEBB, R.A., rising to speak, Mr. G. A. T. MITCHELL [A.] objected on a point of order that no speech or discussion could take place on the motion that the question be now put. The President invited Sir Ashton to continue; the Meeting, he thought, would be glad to hear him.

SIR ASHTON WEBB, R.A., *Past President* : My only excuse for speaking is that I have had considerable knowledge of this matter from the beginning. I hoped, now I had reached the old fogey stage, that I should have been allowed to fall out of the politics of the Institute, but I find myself here again deeply interested in this question. The matter very closely concerns the honour of our Institute. I cannot help thinking that Mr. Hubbard's motion takes very much the form of baiting our President. Looking at it dispassionately, it accuses the President of sending out a wrong description of the policy of the Institute. The President is not asked, as he might have been, to explain what was intended, but the Institute is asked by the motion to say that the President is wrong, and that the document does not correctly represent the policy of the members. Put in that way, it seems to me a serious thing, and when it is brought forward by colleagues of the President on the Council, from whom he might expect to receive loyal support, I think it is our duty to support the President, and to say that this motion shall not be carried. How could any Government exist if the members of the Cabinet were publicly to accuse the Prime Minister of misrepresenting their policy? Apparently these gentlemen think that they only are to be allowed to express their views, and we are to have no guidance and no instruction from our President and Vice-Presidents. That is not a position any President should take. I like to see him express an opinion and take the lead, and I think we ought to be glad that he does so. With regard to the particular matter now before us, the point of the motion is—that it does not correctly represent the policy of the members of the Institute. But to my mind it does quite correctly represent that policy. I was on the first Committee when this registration question came up; I believe I had the honour of suggesting it; and I was

present at the meetings when we heard evidence on both sides with regard to registration. The recommendation of that Committee was that the Institute should apply to Parliament for Parliamentary recognition of our membership. That was the compromise come to between the two bodies. Those who did not agree to registration gave way, and those who wanted registration gave way, and the Committee decided to recommend the Institute to that effect. This report was brought before the Council and approved of in principle, and it was afterwards brought before the General Body and approved of, and it was resolved that an Act of Parliament should be applied for as soon as practicable. I have no hesitation in saying that as soon as practicable meant after the new Charter had time to work and we had got into the Institute the fresh members that we hope to get, so that we could confer together and see whether it was not practicable to go to Parliament for the Bill. For it is useless going to Parliament without unanimity: unless we do, Parliament will not consider it. That is what this circular says, and when I read it I never occurred to me to read it in any other way. I have no quarrel with the proposer of this motion other than I have said. I have had the pleasure of serving on Committees with him; we sat on this Registration Committee together; it is only a real sense of duty and loyalty to our President that makes me say anything at all. I was one with others who urged him to take the post of President of the Institute. With his artistic temperament, if he will forgive me saying so in his presence, he would gladly have taken a less conspicuous part in our affairs. One of the arguments urged with him was that he would find the office of President much easier to fill than he expected, for he would have the united and loyal support of all the members of the Institute. That argument, I believe, had its effect, and he kindly consented. I sincerely hope that nothing will happen to-night to falsify these representations, or to suggest that our Institute would be willing to put a man in so onerous a position as President without at the same time being ready to give him generous and loyal support. Therefore I sincerely hope the Meeting will reject this motion which, as it appears to me, is both unjust and ungenerous.

Mr. A. W. S. CROSS: May I call your attention to the exact wording of the Resolution passed at the General Meeting on the 3rd April 1906? The resolution is: "That the Council be requested to take the necessary steps . . . to apply to His Majesty the King for a revised or supplemental Charter, and to prepare and present a Bill to Parliament." There are no conditions attached; it is absolutely unconditional.

Mr. J. MACVICAR ANDERSON, *Past President*: The whole thing, Sir, appears to me to be very trifling, and not worthy of this Institute. These gentlemen want the thing done at once. You, Sir, and the Vice-Presidents and the Honorary Secretary prefer to give the matter your consideration, which in my humble opinion it ought to have, and I support you thoroughly in the view you have taken up.

Mr. Hubbard's motion being then put to the Meeting and voted upon by show of hands was declared lost, 47 voting for and 78 against it.

Mr. HUBBARD: I have my second resolution to bring forward, and I think it is one that ought to appeal to everybody as being a perfectly reasonable resolution; for it is, I submit, an extremely dangerous precedent to allow a letter to be forwarded in the same envelope with the balloting papers. There is no saying how such a practice might become abused in the future, and I think it ought to be stopped in the first instance. This particular circular was posted in the balloting envelopes to every member of the Institute before the Council had had an opportunity of seeing it, or revising it in any way. I therefore move, "That this Meeting desires that in future no circular letter be posted in the envelope containing the balloting papers which has not first received the approval of the Council."

Mr. H. HARDWICKE LANGSTON [4] seconded.

THE PRESIDENT: As this is a matter of the conduct of business by the Council it is for the Council to regulate its own proceedings, and I do not think it is within the province of this Meeting to instruct the Council how the business should be transacted. The Charter is definite on the point.

Mr. LANCHILSTER: I quite agree, Sir, with Mr. Hubbard, and I wish to support him in this case. I voted against him just now because I believe that this circular does express the policy of the Institute; but it is a dangerous thing to send out a document in this way, and I hope it is a precedent which will not be followed in the future.

Sir ALEX WILK suggested that the resolution somewhat modified might commend itself to the Meeting. He suggested the opening words might read: "That it be referred to the Council to consider as to the desirability in future." After what had been said he thought the Council would probably consider that it might not be desirable. But the matter should be referred to them for consideration and report.

PROFESSOR REGINALD BLONFIELD seconded the suggestion.

Mr. HUBBARD: May I at once say that I brought forward this resolution in those same words before the Council meeting, and I was unanimously opposed by every member present except one. I am therefore not inclined to let this matter go to the Council.

Mr. H. SHEPHERD [4] asked leave to point out that By-law 30 was very explicit as to the form and despatch of the voting-papers. It laid down that "the name of every member so nominated shall be added to the said list, which, with such added names, if any, shall be the voting list for the election. The names of all candidates for election shall be printed in the same type and in alphabetical order. On the back of this list shall be printed directions for its use by the members." It was evident that nothing more could be enclosed in the balloting envelope. The Council must not go beyond the By-laws in the matter of the elections, and in sending out this circular letter with the balloting-papers they were acting directly contrary to By-laws.

Mr. J. J. BURNET, A.R.S.A. [4], said that Mr. Hubbard had referred to a meeting of the Council at which the Council unanimously resolved to support the Chairman. He (the speaker) submitted that a chairman must have his prerogatives, and one of his prerogatives was sometimes under certain circumstances to act outside all by-laws. There might be circumstances and conditions under which, when the President had not the opportunity of consulting his Council, the Institute would feel that the President did right in taking a certain action not scheduled in their Constitution or By-laws. There were responsibilities attaching to the Chair of the Institute, and he was not willing to forgo a single one of those responsibilities. The Institute expected their President to meet, not only the legal constitution, but to show his wit in emergencies, and to meet those emergencies constitutionally if he had time to consult the Council; but if he had not, he was responsible to meet them immediately. Let them not withdraw any prerogative from the Chair, but rather heap responsibilities upon it. Whoever he might be, let the Chairman feel that he had to act, and that he had full responsibility of his action. He (the speaker) asked the Council the other day to pass a resolution in support of the action of the Chairman on the distinct understanding that he had not had an opportunity of consulting the Council, and that he issued the letter in what he believed at the time to be in the best interests of the Institute. That being the case, it was ungrateful for any member of the Institute to challenge it. If, on the contrary, he had had an opportunity of consulting the Council, he (the speaker) should have been the first to say that his conduct and that of his fellow-signatories was unconstitutional. But even

an unconstitutional act may be done by the Council sometimes, and he did not know that it should be allowed to go further than the Council if it had occurred. These gentlemen had not had an opportunity of consulting the Council when the letter went out, and he thought that Sir Aston Webb's proposition might be followed, and Mr. Hubbard's resolution be referred to the Council, who were elected, not to carry out the dictates of members, but to consider their resolutions; to consider the policy of the Institute, and to exercise their own brain power in carrying out what the General Body desired. Their views might not always agree with the views of the General Body, but if they continued to disagree members had it in their power to elect a fresh Council. It was wearisome, however, to be called upon eternally to explain one's policy. The Council ought to be given the impression that the General Body trusted them and were prepared to leave them to exercise their own judgment, and to believe that they would not play the Institute false, and would not let anybody else play it false. He therefore begged them to be good enough to leave this matter, as Sir Aston Webb suggested, to the consideration of the Council, so that if Mr. Hubbard's motion be carried at all it should be considered in the form of a By-law.

Mr. MIDDLETON said that Mr. Burnet's suggestion opened a way out of this difficulty—viz. that they should consider a new By-law which should state clearly what the powers of the Council and of the officials were as regards the issue of circulars, but reserving to the President, if necessary, the right of acting on his own behalf, on the understanding that he put it before the Council at the first opportunity afterwards.

Mr. EDWIN T. HALL, *Vice-President*, referring to the point raised by Mr. Shepherd about By-law 30, said that that By-law dealt with the annual elections, and simply specified the procedure to be followed. There was nothing in it that affected this question at all. It was laid down in the Charter, however, that the Council should have entire management and superintendence of the affairs of the Institute. Mr. Burnet had told them that a certain action had been done in good faith. It was not likely that a circular letter like that in question would be very often sent, because it dealt with an event which could happen only very rarely, as, for instance, on the occasion of the grant of a new Charter, and to say that under no conceivable circumstances should a circular letter be sent would be to stultify the action of the Council when it might be most necessary in the interests of every member of the Institute that such a document should be issued. This resolution, if it meant anything, meant that a circular had been sent out that was wrong. This Meeting had determined that that was not so. An emergency occurred, and it was the duty of the principal officers, whom members had honoured by electing, to take the responsibility of doing what was for the best interests of the Institute. That emergency had arisen in the present case, and to say that it should never occur again would be a very grave mistake; it would be an expression of opinion amounting practically to a vote of censure in respect of something done; and he hoped the Meeting would pause before it passed this resolution. He thought with Sir Aston Webb that the matter should be referred to the Council to consider.

Mr. LANGSTON: Either Mr. Hall is wrong in his facts or Mr. Hubbard is. Mr. Hubbard tells us that this circular letter was not the act of the Council; Mr. Hall says that it is. Can we be told what is the actual fact before we vote?

Mr. E. T. HALL: The circular letter was sent out by the signatories, and at the next Council it was approved by the whole Council with the exception of two dissentients; therefore it becomes constitutionally and legally the circular of the Council.

Professor BLOMFIELD: As the point of constitutional procedure has been raised I seconded Sir Aston Webb just now, but I believe he agrees with me in thinking that

Mr. Middleton's proposal has hit the nail on the head—that this point having been raised, and there being a difference of opinion as to the exact constitutional procedure, it ought to be considered whether it might not be met by a By-law in future.

Mr. CROSS: I should like to point out with regard to the letter that I understood Mr. Hall to say it was a matter of urgency. As a matter of fact according to his own showing, there was no urgency whatever about it.

Sir ASTON WEBB expressed himself in agreement with Mr. Middleton's proposal.

THE PRESIDENT: We will vote, then, on Mr. Middleton's amendment.

Mr. MIDDLETON: I am not putting this forward as an amendment. I suggest that the matter be deferred for the moment, and be revived on the question of the By-laws, and if you will allow me I will draft a By-law for further consideration next Monday, when the adjourned meeting takes place.

Professor BLOMFIELD: I will second that.

Mr. MATRICE ADAMS: I should like to support Mr. Middleton's proposal. I hope we shall all insist upon arriving at some definite conclusion, if anyone can put the proposition into form. A great many of us feel that to issue the circular in the manner adopted was constitutionally wrong. The unfortunate part is that this circular should have been sent with the voting papers. A few years ago, when there was some unpleasant proceedings with regard to the matter of registration, certain electioneering manifestoes were sent round, and they were spoken against by those in authority. Now the authority does exactly the same thing in a most objectionable way. If this paper was so urgent it might have come in another envelope. I see no objection to the document itself, but I do personally take very great objection to any paper bearing upon the elections being sent with the voting papers. Let the constituents form their own opinion, and not be given a lead or afforded an opportunity to read between the lines. It may be necessary at times for the President to advise and admonish, but it may be also necessary at times for obscure individuals to assert themselves. He hoped Mr. Middleton's reasonable proposal, which had been acquiesced in by the greatest authority in that room, Sir Aston Webb, would take a definite form, and so end all personalities.

Mr. E. T. HALL: Will Mr. Hubbard withdraw his motion?

Mr. HUBBARD: I would rather not withdraw my motion. I am simply speaking of what I believe to be a matter of principle.

THE PRESIDENT: Mr. Middleton's amendment, then, is before the Meeting.

Mr. MIDDLETON: I will do what I have said, Sir, but I do not propose it as an amendment to Mr. Hubbard. I should support Mr. Hubbard certainly.

Professor BLOMFIELD: I seconded what I thought Mr. Middleton put forward as an amendment—apparently I misunderstood. I therefore propose that a By-law be drafted dealing with the powers of the officers of this Institute with regard to issuing circulars.

Mr. MATRICE ADAMS seconded.

The amendment being put to the vote was carried by 69 to 16. It was then put as the substantive motion and declared carried by 62 to 26.

The questions of which Mr. A. W. S. Cross had given notice were not brought forward, the feeling of the Meeting, taken at Mr. Cross's request, being expressed against them.

It being on the stroke of ten, the Special General Meeting for the consideration of the Draft By-laws, adjourned from the 24th May, was not proceeded with, a further adjournment to the 14th June being agreed to.

The Annual Dinner.

The Annual Dinner of the Institute took place on Wednesday the 26th ult. in the Banqueting Hall, Whitehall Rooms, Hôtel Métropole. The President, Mr. Ernest George, was in the Chair, and guests and members present numbered altogether 175. Guests at the high table included, on the President's right, Sir Ernest Waterlow, President of the Royal Society of Painters in Water Colours; Sir Melville Beachcroft, Chairman of the London County Council; Mr. J. S. Sargent, R.A.; Mr. J. Macvicar Anderson, F.R.S.E., *Past-President*; Sir Charles McLaren, P.C., M.P., Mr. Frank Dicksee, R.A. [*H.A.*], Mr. Charles H. Read, LL.D., President of the Society of Antiquaries; Professor Reginald Blomfield, A.R.A. [*F.*], Mr. W. H. Lever, M.P., Mr. Hamo Thornycroft, R.A. [*H.A.*], Sir John Taylor, K.C.B. [*F.*]. On the President's left were Sir Aston Webb, R.A., *Past-President*; Sir Wm. Emerson, *Past-President*; Mr. Thomas Brock, R.A. [*H.A.*], Mr. Thomas E. Colcutt, *Past-President*; Sir Lawrence Alma-Tadema, O.M., R.A. [*H.F.*], the Ven. Archdeacon Sinclair, Sir Henry Howorth, K.C.I.E., Mr. Henry Morris, President of the Royal College of Surgeons; Mr. John W. Simpson, *Vice-President*; Mr. Philip Norman, F.S.A., Mr. Philip Morrell, M.P., Sir James Linton, R.I. [*H.A.*]. The lower tables were presided over by Mr. Alexander Graham, F.S.A., *Hon. Secretary*; Messrs. Edwin T. Hall and James S. Gibson, *Vice-Presidents*; Messrs. John J. Burnet, A.R.S.A. [*F.*], E. Guy Dawber [*F.*], Henry T. Hare [*F.*], and John Slater [*F.*]. The following is a complete list of those present:—

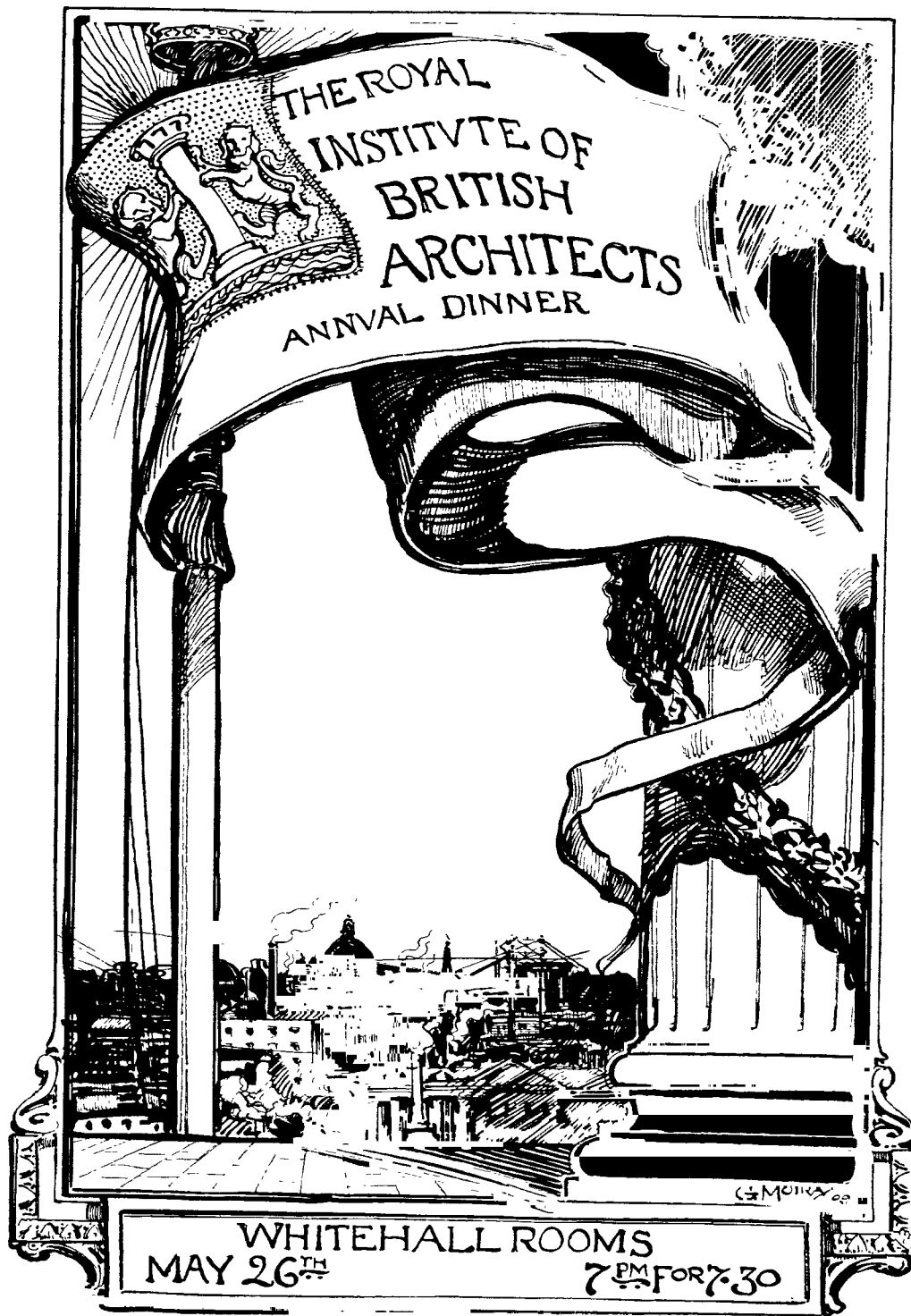
Maurice B. Adams [*F.*], Sir Lawrence Alma-Tadema, O.M., R.A. [*H.F.*], J. Macvicar Anderson, F.R.S.E., *Past-President*; R. Frank Atkinson [*F.*], Maxwell Ayrton [*F.*], Herbert Batsford, Sir Melville Beachcroft (Chairman of the London County Council), W. C. Beetles, B. E. Bell, H. F. Bidder, Professor Reginald Blomfield, A.R.A. [*F.*], Detmar Blow [*F.*], Edward Boehmer [*F.*], G. E. Bond (President of the Society of Architects), Alderman Sir T. Vansittart Bowater, Thomas Brock, R.A. [*H.A.*], C. W. Brooks [*F.*], F. S. Brown, George T. Brown [*F.*] (President of the Northern Architectural Association), John J. Burnet, A.R.S.A. [*F.*], James T. Cackett [*F.*], Rhodes Calvert [*F.*], Vere Calvert, Sydney H. Caslon, Christian Christensen, F. Dare Clapham [*F.*], Max Clarke [*F.*], S. D. Chippingdale, M.D., Thomas E. Colcutt, *Past-President*; John Collings, Howard Colls, A. S. Cope, A.R.A., Hubert C. Colette [*F.*], Alfred W. S. Cross [*F.*], Arthur G. Cross, E. Guy Dawber [*F.*], Frank Dicksee, R.A. [*H.A.*], C. Fitzroy Doll [*F.*], David G. Duven, *Secretary A.A.*; F. Eiloart, Wallace Elliott, Sir William Emerson, *Past-President*; Frederick R. Farrow [*F.*], T. Phillips Fergus [*F.*], William Flockhart [*F.*], Frank Fox [*F.*], Arthur Franklin, Percival M. Fraser [*F.*], Edward Gabriel [*F.*], Matt Garbutt [*F.*], Alan George, Ernest George, *President*; J. Melton Gibbs, James S. Gibson, *Vice-President*; G. L. Gomme, F.S.A. (Clk. of the London County Council), Montague Goodall, Alexander Graham, F.S.A., *Hon. Secretary*; J. Bradwood Gray, Edward Greenop, Edw. T. Hall, *Vice-President*; Stanley Hamp [*F.*], F. H. A. Hardeastle [*F.*], Henry T. Hare [*F.*], Ewen Harper [*F.*], W. H. Harrison [*F.*], Charles Heathcote [*F.*], George T. Hine [*F.*], George Homblower [*F.*], Sir Henry Howorth, K.C.I.E., George Hubbard, F.S.A. [*F.*], A. A. Hudson [*H.A.*] (Chairman

of the Tribunal of Appeals), C. E. Hutchinson [*F.*], Edward B. Lanson [*F.*], G. F. Leitch-Jell [*F.*], Harry Osborn-Jenkins, Joseph Jennings [*F.*], J. Jones [*F.*], J. Keene, Otto Kyllmann, P. Ogden Lawford, K.C., W. H. Leach, M.P., Sir James Linton, R.I. [*H.A.*], W. F. Locke [*F.*], F. H. Loder, Edwin L. Lutyens, F.R.S., J. Y. W. MacAlister, F.S.A., Mervyn Macauley, F.S.A. [*F.*], Bertram McConah, A.R.A., Sir Charles McLaren, M.P., Herbert C. Marshall, F. Vernon Miles, Professor Gerald Montagu, H.A., H. Percy Mordaunt [*F.*], H. Greville Montgomery, M.P., Albert W. Moore [*F.*], Philip Morrell, M.P., Henry Morris (President of the Royal College of Surgeons), Alan E. Munby [*F.*], John Murray [*F.*], G. Ernest Nield [*F.*], Philip Norman, F.S.A., *Past-President*; Capt. Walter P. de H.A. Pelly [*F.*], S. P. Piers-Pick [*F.*], S. Welford Pike, William A. Pitt [*F.*], Horace Porter, W. E. B. Priestley, M.P., Charles H. Read, LL.D. (President of the Society of Antiquaries), Professor C. H. Reilly [*F.*], F. G. Rees (President of the London Master Builders' Association), W. F. Rice [*F.*], Percy Robinson [*F.*] (President of the Leeds and Yorkshire Society), William Robinson, Reginald St. A. Round [*F.*], Ernest Runtz [*F.*], E. Monno Rattz, J. S. Sargent, R.A., W. Howard South-Smith [*F.*], George Sharlin [*F.*], Frank Short, A.R.A., Gilbert M. Simpson [*F.*], Graham Snaps, F.R.C.S., John W. Simpson, *Vice-President*; the Venerable Archdeacon Sinclair, John Slater [*F.*], J. Osborne Smith [*F.*], Lewis Solomon [*F.*], S. A. Stanley, H. Heathcote Sutherland [*F.*], Alexander R. Storrington [*F.*] (President of the Surveyors' Institution), Frederick J. Stevenson, Augustus W. Tait [*F.*], Sir Henry Tanner [*F.*], Henry Tanner, Jun. [*F.*], W. J. Tapper [*F.*], Sir John Taylor, K.C.B. [*F.*], A. G. Temple, Sir Brimwell Thomas [*F.*], Hamo Thornycroft, R.A. [*H.A.*], George Traill, Percy B. Troland [*F.*], J. Pater Wallington, Frederick Wallon [*F.*], W. F. Waters (President of the Institute of Builders), W. H. Warner, Sir Ernest Waterlow, R.A. (President of the Royal Society of Painters in Water Colours), Dr. R. J. Waugh, Sir Aston Webb, R.A., *Past-President*, Thomas B. Wherry [*F.*], Frank W. Wells [*F.*], A. Nerland Wilson [*F.*], George E. Withers [*F.*], William Woodward [*F.*], Percy S. Worthington [*F.*] (President of the Manchester Society), Alfred B. Yates [*F.*], Clyde Young [*F.*], Morgan H. Young (Master of the Amateurs and Builders' Company), Ian MacAlister, Secretary, and other members of the permanent staff and representatives of the Press.

Invitations had been accepted by and covers were laid for the Earl of Plymouth [*H.A.*], the Earl of Strathcona, the Earl of Dundonald, and Lord Burghclere; but messages were received from them at the last moment regretting their inability to attend. A programme of music was performed during the evening by the Westminster Singers.

The loyal toasts having been duly honoured,

Mr. JOHN W. SIMPSON, *Vice-President*, proposed the toast of "The Houses of Parliament." The toast of the King, he said, was in the case of the Royal Institute, of which His Majesty was the gracious Patron, of course especially appropriate; and equally fitting to the members of a profession acutely dependent upon a regular and ordered governance was that which he was privileged to propose—viz., "The Houses of Parliament." Without that security and peace which their wise and statesmanlike measures afforded, there could be neither continuity nor advance in the art of architecture. Bound in the service of that exacting mistress, architects, like other artists, remained



Menu card designed and presented by Professor Gerald Moira [H.A.].

ingloriously, though he hoped not uselessly, outside the strife of legislating parties. Rumours reached them from the field of battle that it would be a hard winter for the rich; that great distress was expected among millionaires, and so on; and, themselves serenely secure, like *vacuus viator*, they dropped a sympathetic tear for the troubles of others. Perhaps it was by reason of this detachment that the architect was politically a rather curious study—he supposed the nearest definition of his views would be that known in America as “mugwump.” The architect’s convictions might be described as those of a conscientious opportunist; they varied according to the conditions of the problem with which he was called upon to deal. Was it a scheme of improvement and rebuilding—they would find him in the ranks of the advanced revolutionary Radical! he would make a clean sweep of the existing and establish a new order. Give into his hands some ancient structure of artistic interest, and where would be found so convinced an ultra-Conservative! Not a stone must be touched which could be left intact; considerations of utility fell into the remote background, and he would contend for the very grime which marked the structural document as authentic! Thus it would seem that while certain qualities in the temperament of architects especially fitted them to assist in the deliberations of the House of Commons, there was another aspect of their professional character which would enable them without inconsistency to become Lords should their presence be preferred in the Upper House of Legislature. He had ventured with some diffidence into this domain of politics because he understood such matters to be germane to the toast. But to the architect the words “House of Parliament” connoted a quite other meaning than political. There was an interesting psychological experiment which consisted in ascertaining the mental image evoked by a word; thus the word “building” would be found to suggest in many minds a “cathedral,” in others a “factory.” The word “statesman” recalled to some the features of Mr. Gladstone, to others those of Lord Beaconsfield, and so on; so to an architect the Houses of Parliament meant the splendid monument we owed to the genius of Sir Charles Barry—that subtle combination of our wayward native Gothic detail with the great Classic tradition of balanced disposition and plan, which is the glory of our profession; a building before which the austere training of the French and the instinctive love of the picturesque of the English, alike bared the head and saluted the master who created it; and if they as architects acclaimed the worth of the building it was because it was, as was proper to their art, a symbol and an expression of the worth of its occupants.

Sir CHARLES McLAREN, M.P., in reply, said that Lord Plymouthe, who was to have responded to the toast, but who was unable to attend on account of

indisposition, was one of those men whose names would always be associated with those who took an interest in art. He (the speaker) was a member of an inferior assembly, but one whose connection with art was traditional in voting, more or less cheerfully, large sums of money to be expended under the auspices of architects and others. The House of Commons might be considered an enemy of architecture rather than a friend, for if they went back over its history they would find that it had done more in the way of pulling down our ancient monuments than in building them up. That, however, was due perhaps to the fact that politics and art had never been very close friends—except perhaps in the case of the Florentines, when politics and art were very close together. In the case of our Parliament, at a time when oratory was at its highest, art in great measure was at its lowest, and as some people said that oratory in the best sense had disappeared in the present Parliament, it was to be hoped that art would be in the ascendant, and that what we lost in the art of oratory would be compensated for in the magnificence of those structures for which architects were responsible. The House of Commons was always willing to vote money for architectural and artistic purposes. It was the Treasury, not the House of Commons, which was responsible for the stingy grants given to artistic purposes in this country; and the Treasury, he was afraid, acted too often as an extinguisher on the heroic resolutions and aspirations of the members of the House of Commons. Really, he could not help thinking that the House of Commons and the House of Lords ought to have done more in the past for the architecture of our country. They might have done something in the past to discourage the leasehold system that had filled London with streets of squalid tenements, while some cities of other countries would last for all time. London had not the grand boulevards of Paris, the Ring-Strasse of Vienna, or the spacious avenues of Washington, but it possessed many fine monuments; and it was a city of contrasts, as it always would be, in architecture as in everything else. He was not sure that he did not prefer the picturesque crudities of our London streets, adorned by works of our modern architects, to the somewhat grand regularity of modern cities of the Continent. With all our restricted resources, we had in London as beautiful a collection of buildings, as interesting a series of historical monuments, as would be found in any great architectural centre of the world. He sometimes dreamed dreams and thought there were opportunities which might be seized in our great metropolis. For instance, he hoped to see the day when some rich man, if Parliament would not help, would take in hand Hyde Park Corner, and give us a magnificent opera-house in place of the hospital that now disfigured the place. He hoped that Parliament would provide money to give a new front to Buckingham Palace, and he was encouraged to think they

would when he looked at the great work done since the accession of the King in beautifying the Mall and St. James's Park—a fine monumental work due to the genius of Mr. Brock, splendidly displayed in the great avenue which Sir Aston Webb had done so much to improve. We owed a great deal to the King, who had lent his influence to the embellishment of London, and the King had been most ably assisted by Mr. Lewis Harcourt, the First Commissioner of Works, who understood such matters, and who was prepared to do all he could in the matter if the Treasury would allow him to carry out that work to its full consummation.

Professor REGINALD BLONFIELD, A.R.A. [F.], proposed the toast of "Art, Science, and Literature." Art and Science, he said, had a familiar ring to architects, because they were taught in their youth that architecture was a science and an art, but unfortunately their tutors omitted to teach them how it was either one or the other; and when in later years they came to test this by their own experience they found that the opportunities for art were somewhat rare, that the science of architecture was not all that they should desire it to be, and that the pursuit of architecture in this country was an extremely arduous and exacting profession. He would not harp on that familiar string. He thought he might take it for granted that all architects worthy of the name were artists—if not in attainment, at any rate in intention; and what helped them in their work, in the practice of architecture, was the art of it. This had a fascination for them which was denied to more prosaic callings. Blowing one's own trumpet was not considered right, but he thought he might venture on a few remarks in praise of his artistic brethren. He had read in *The Times* of the previous day some remarks by an extremely competent writer, who said that he considered the standard of architecture in this country at the present time was higher than it had been since the eighteenth century. That was an extremely interesting compliment to architects, and he believed it was a perfectly well-founded one. If they kept their eyes open, they would find a great quantity of excellent work being done in London and all over the country; and he was not referring to the work of men of established reputation only, but to that of many men whose reputations at present had not reached the dimensions they would ultimately reach, for they were doing admirable work. Yet he was afraid that in spite of that—and it was a painful fact—architecture at the present time in this country did not meet with the recognition that it deserved. Who was responsible for that? Was it the public? He did not think it was; besides, the public were the employers of architects, and it would be unwise to say anything against one's clients. He thought the fault was due to the gentlemen through whose eyes the public were made to see all artistic creation. There were, he was glad to say, critics of knowledge

and discrimination who handled the art of architecture with the utmost intelligence and sympathy. The remarks in *The Times* he had referred to and many other articles in that great paper seemed to bear him out; but there were other critics or writers who treated architecture as a very useful stick with which to belabour individuals or institutions of whom or which they personally disapproved. He did not think he need particularise the arenas in which these gentlemen disported themselves. Lastly—and this was the unkindest cut of all—there were writers who ignored the existence of architects and architecture altogether; they did not recognise the fact that at the present time there were a number of able men who were devoting themselves to the practice of the art. He did not think this was as it should be. Architecture had been in the past a great art and had occupied a great place; and when one considered all the ability displayed in architecture he could not help thinking that their art ought to occupy that place again. It ought to take its place—as he believed it would ultimately—amongst the sister arts as their coadjutor and ally, not as their dictator. As to the sister arts of painting and sculpture, and the beautiful art of music, he need not say much. All of them loved those arts and found in them the source of the most intense pleasure they were capable of enjoying, and he could do no more than offer representatives of those arts his congratulations that their work lay in such happy places. No doubt all had read recently the remark of Mr. Briton Rivière, that any one who had the good fortune to be a landscape painter ought to consider that that fact alone was worth £1,000 a year to him apart from any petty considerations of cash received. The artist's banker perhaps might have something to say about it, but in any case their painter friends would endorse what Mr. Rivière had said. Sir Charles McLaren had anticipated a remark he (the speaker) wished to make as to the work in the Mall. He should like to pay his humble tribute of the admiration which they all felt for the splendid beginning of Mr. Brock's great monument—not only for its consummate technique, the fine spaciousness of its design, but for that personal quality which appealed to them all. Mr. Brock was not only a fine artist, but he was also a fine Englishman, who had translated into his bas-reliefs that feeling for the life of the open air and sea which was one of the great qualities of the race. He thought that Mr. Brock and his colleague, Sir Aston Webb, had gone far to remove the reproach which was sometimes levelled at Englishmen that they are incapable of dealing with monumental design. It was unsafe to prophesy, but he thought that those two artists might feel that they had won the gratitude not only of this but of future generations by their labours in beautifying London. As to Science, of the benefits conferred by the masters of medicine and surgery they were sensible every day of their lives,

and one of their qualities that he most admired was their absolute unselfishness. The way in which a scientific man, having made a discovery, refrained from taking out a patent on it and so making his fortune, but rather handed it over to his brethren and practically presented the result of his labour and genius to the world, showed the high aims and ideals of science. As to applied science, probably the form which appealed to them most was engineering. English engineers had always ranked high in the world, and they saw monuments of their skill and knowledge in every quarter of the globe—the great bridges, the embankments, aqueducts or barrages, the reclamation of immense tracts of barren land. The achievements of the mechanical engineer were scarcely less wonderful, or those tremendous engines of warfare which by some grim irony seemed to keep pace with each advance of civilisation. A fine work of engineering would always appeal to architects and all artists, because such a work represented the most perfect expression of adaptation of means to an end. But there was one criticism he should venture: the engineer seldom failed, but when he did it was because he forgot his proud prerogative and imagined he was an architect. There had been cases in which the engineer had decorated his building, and the result had been a perfect orgy of irrelevant ornament. If the ornament were cut away one saw the element of stark inimitable strength which was the glory of the engineer and the despair of the much harassed architect, who had to make bricks with straw. As to Literature, he felt on a little more familiar ground, because most of them had dabbled at some time or other in literature, and some of his friends said that he (the speaker) ought to call himself a literary man. He would willingly do so if he felt in the least qualified, and also were it not for the fact that he liked architecture and its practice. He thought, however, he could claim a profound belief in and love for literature. He thought the literary habit, the faculty of looking around a subject, the power of detachment, even of humorous detachment, from the problems of life, were scarcely less important than the scientific intellect. Perhaps the scientific intellect burnt with too intense a light and lost something of the half-lights and dim perceptions of the ultimate possibilities of life. Then there was the important *rôle* of the king-maker—the maker and unmaker of reputations, and possibly in these days of booming these gentlemen were too much in evidence: they performed their functions with indomitable aplomb and perfect irresponsibility. At the same time they must all recognise that the literary man in this sense was an indispensable person. There were great men before Agamemnon, and fine sculptors before Phidias, but they knew nothing of them because, as the most brilliant literary man of their time had said, there was no one by to put in “the harmless necessary word.” This *rôle* of the literary man was highly

important, but the literature which meant most to them was that dealing with the imagination—that which had the power of taking them out of their daily lives and transporting them into the world of romance, making them think for once in their lives that they were performing prodigies of valour or producing consummate works of art. He recollected a story of Stevenson, who used to say that he liked to imagine himself galloping across country at the head of a regiment of cavalry, which was the last thing in the world he was physically capable of doing. But there Stevenson struck the real note of genius—the golden power of the imagination, shedding its light on the dull realities of the world, that power which made them assign to the literary man of genius possibly a higher pedestal than they should give to the great artist or man of science. Within the last few weeks two such men had left them, two of the most striking and picturesque figures of the great period which was now drawing to its close. The world was poorer for their loss. But it was not for them to look back, but rather to look forward and to the rising generation to carry on the great traditions of the mighty men of the past. He had to couple with the toast the names of three distinguished men—the toast of Art with the name of Sir L. Alma-Tadema, in whom he did not know whether to admire most his splendid vitality, or his technique, which seemed to get finer and finer the older he grew; with the toast of Science he coupled the name of Mr. Henry Morris, President of the Royal College of Surgeons, one of the benefactors of the race he had already referred to; and with the toast of Literature the name of Mr. W. J. Locke, the “Beloved Vagabond” who had deserted the arduous service of Architecture for the more brilliant realms of Literature.

Sir LAWRENCE ALMA-TADEMA, O.M., R.A. [*H.F.*], in reply, said that the word “Art” was one of those which awoke in us great thoughts, but the art of explaining what Art is remained as in a closed book. One could at most suggest what the meaning of Art might be. Some years ago the King of Sweden, at a Royal Academy banquet, said, “Art is the flower of the tree of life.” That struck him as being a fine thought, and he remembered it when he was last week-end in a beautiful part of the Thames Valley. The blossoming trees were beautiful, and made one forget how forlorn the world looks in winter. Surely our life would be as barren as trees in winter if we had not the flower of art to embellish it, to cheer us and make us feel happy. That day he had been to the Mall and had seen the beautiful new work there, which was full of grandeur, and which impelled him to say what a wonderful thing architecture is and how proud we should be to think that our architects made the world more beautiful. He expressed his thanks and the thanks of the public for all they owed to architects for their works up and down the country, especially in London, where the days were often grey.

Mr. HENRY MORRIS, M.B., President of the Royal College of Surgeons, who responded for "Science," said that science was a very comprehensive term, for it included mental and moral philosophy as well as natural philosophy. In these days few men were able to speak with any authority for more than at most two or three branches of science, and anyone who could only speak for one had but an imperfect knowledge of that one. So connected and related were the various branches of science with one another that any great progress in one branch was conducive to a corresponding advance in several others. In no period of the history of the world had the science and practice of surgery and medicine made such extensive, such far-reaching, such rapid and, he thought he could say, such marvellous progress as during the last twenty-five or thirty years. And this was due in large part to the advances which had been made in many other sciences besides those which were immediately ancillary to medicine. Not only was there this correlation of the sciences, but Science itself ought not to be regarded as a thing apart and altogether distinct from Art and Literature. To Literature the scientist owed much for many suggestions and ideas which had led to fertile development and research; and from the arts of drawing, of colouring, of modelling he had derived invaluable assistance, for which he was also deeply indebted. In one of those many literary works—he thought it was called the "City of the Sun" by Campanella—in which authors, following the example of Plato in his "Island of Atlantis," have chosen the description of an ideal republic as the vehicle of their thoughts, it is stated that all the women and children were considered to be the common property of the State, and that, owing to the insufficient and inadequate attention which was given by individuals to education, all the children from the age of three years were taught by the State, not by means of books, but by pictures emblazoned upon the walls of the city. The outer wall of the city had portrayed upon it the figures of the legislators and philosophers; and within were six circuits of walls on which were depicted the signs and symbols of the sciences. He was not aware that in any real city this method of instruction had been carried further than in the primitive method of illustration to be seen outside shops in some cities of the East, to illustrate in a crude manner the nature of the commerce which was carried on within. However this might be, he was sure that Science owed a deep debt to Art for the assistance it derived from engravings, coloured drawings, and other pictorial illustrations. But conversely, Art and Literature owed much to Science, though there was not time to follow that line of thought. There was, however, an irretrievable, an irreconcilable difference, despite the points in which these various subjects touched one another, between Science on the one hand and

Art and Literature on the other—a difference which existed and must exist, and which would persist, *i.e.* as to their aims and purposes. The goal of Science was simply truth; the goal of Art and Literature was beauty and effect. Truth and fact were especially the objects of Science; fiction was a large factor in Literature; and Art, despite, or in spite of, the old Spartan adage, "True art is truth," impregnates and blends the ideal with the actual, and the actual with the ideal. Poetry might be a hymn of perfection; art and poetry, by the aid of the imagination, could represent the divinity of the gods, the sublimity of the heavens, and the spotless purity of the angels. But equally, such were their versatility and resource, they could throw a glamour and attractiveness over vice, and lend an interest to the drama or the tragedy of crime. Science could do none of these things; she was no respecter of persons, and it was on account of her single-minded pursuit of truth that she had met with hatred and opposition, and the scientist with persecution, in time past, from the Church. He had referred to the way in which Science and Literature act and react upon each other, but also there were many instances of men being distinguished in both art or Literature and Science; and medicine had been foremost amongst the various professions in the number of men brought up in its ranks who had made themselves distinguished in art and in literature. Sir Christopher Wren was a distinguished scientist before he became a distinguished architect. Of Wren's work as an architect, done, he believed, at a period when the art and science of architecture was at a very low ebb, he would not venture to express an opinion. But he might be allowed to utter a regret about something in connection with the work of that great architect. It was well known that Wren desired to build a colonnade around a piazza in front of St. Paul's, much like that of Bernini's in Rome in front of St. Peter's; and it was also Wren's great desire to lay out the city of London, after it had been destroyed by the Fire, with broad fine streets radiating from an open space; but this scheme was prevented by two causes, namely, the value of the land round about St. Paul's and because the land belonged to numerous private individuals. We were suffering from the same causes now. Could Wren's views have been followed we should not have long rows of narrow, dull, and dreary streets to produce a depressing and very inartistic effect on the population of London. Wren was not only distinguished on many scientific grounds, but he was worthy of remembrance as the would-be beautifier of the streets of London.

Mr. W. J. LOCKE [H.A.], who responded for Literature, said he felt that, instead of presuming to address them, he ought to be in a state of agitation, wondering whether anything had gone wrong with the dinner, and his friend Mr. MacAlister would understand what that feeling was like.

Dissociated as it was that evening from Art, one was always puzzled for the want of a definition of what Literature is. There were certain forms of literature—there were Montaigne's *Essays*, Gibbon's *Decline and Fall of the Roman Empire*—which could not come within the sphere of what was ordinarily known as art; whereas imaginative literature—poetry, the higher forms of the drama, and imaginative romance—were as much art as painting, sculpture, or architecture. It was only quite lately that a suggestion had come to him, not for a definition, but for a means whereby one might form some kind of an idea of what literature is, and that was in the form of a story—a story of two working men leaning over a public-house bar. One man says to the other, "Bill, why do you mix beer and whisky?" The other man replies, "Can't you see? If I went on drinking beer I would get full before I got drunk; if I went on drinking whisky, I would get drunk before I got full; but by mixing them I get forra'der very comfortable." And so it seemed to him that if a man mixed the ardent spirit of Shelley with the filling prose of Gibbon he could get on very comfortably towards an idea of what literature in its combined sense really was. No one could respond to the toast of Literature at the present time without a reference to the death of the great chieftain of letters, George Meredith—an event which had cast a gloom over the world of letters and art. The great novels of George Meredith had always given him the impression of a cathedral in their great architectonic scheme combined with their lavish wealth of perfectly applied detail. His loss was as great as the loss of a chief in any sphere of human activity; but as in the high affairs of State, so in the world of letters, *Le roi est mort, vive le roi*—Meredith was followed in his chieftaincy automatically, unquestioned, by one whose name was always received in the Institute with pleasure—viz. Thomas Hardy, who, when a very young man, won the Institute Essay Medal. It had been a matter of great regret to him (the speaker) that during his Secretaryship of the Institute the Library had not a copy of Thomas Hardy's essay that won the prize, and all the time he had been unable to procure one; but it must be a pleasure to architects to know that out of their ranks had come the *doyen* of English letters at the present time. It was a great thing in any art that there should be one great, wise, commanding figure who held himself aloof from, and yet sympathised with, the struggles of the newer generation—one whom the newer generation could call Master; one who had struggled with the powers of darkness, poverty, lack of recognition, the critics' contumely, and had come through obscurity into a blaze of unquestioned fame. It was good that such a man should be kept before the newer generation, not only as an example, but as an illustration of the remark that there were brave men before Agamemnon. There were many young Agamemnons

about who might be excellent men and fine artists, but who were too prone to imagine that theirs was the only generation which ever mattered. That was a great mistake. He had heard President after President of the Institute urge the younger men to go back to the great masters whose hands were still; and if that were true in architecture, it was profoundly true of the great art and craft for which he had the honour to respond.

Sir R. MELVILL BRANCHBOLT, Chairman of the London County Council, in proposing the toast of "The Royal Institute of British Architects and the Allied Societies," said that no doubt the honour of proposing the toast had fallen to him because he was for the nonce the titular head of a body which had much in common with architects. One of the objects of such a gathering that evening was to afford an opportunity of comparing notes as regards the progress which was going on in our midst. It happened that this year the London County Council had entered upon its twenty-first year of existence, and, as its Chairman, he had been considering how far they could feel that during the past twenty years they had contributed to the betterment of London. On the whole, he thought he could answer the question fairly satisfactorily. The great insanitary areas which were once a disgrace to London had disappeared; our streets were better and were getting wider every day, and so far as the buildings were concerned he thought we could say they were becoming a credit to the city; while the health of London during those twenty years had vastly improved—so much so that one-third fewer people died now than was the case twenty years ago. The city, in fact, had become worthy to be the capital of the Empire. Architects, too, were asking themselves to-day this question, What of architecture? Had architecture made progress, say, during the last fifty years? Was the architecture of the twentieth century likely to put into shade the architecture of the nineteenth century? Some years ago a French architect who paid a visit to London remarked, "You have great architects"; and he added, "London is wonderful—*c'est grand, c'est digne, c'est beau, c'est comme un policeman*," by which he (Sir Melvill) supposed he meant that our buildings were commonplace. This is no longer an observation applicable to London. London had improved vastly during the last decade. We had left the early Victorian period behind us and learnt to follow the lines bequeathed to us by those great masters, Inigo Jones and Christopher Wren, and for this we had to thank the Royal Institute of British Architects and other kindred societies. He had been reading their Annual Report, and he was bound to say he had done so with much pleasure. The range of the activities of the Institute was almost as wide as that of the London County Council. The Institute had its Standing Committees, its Board of Architectural Education, as well as its Council, and the two bodies had much in common

one with the other. Education was an important part of the work of the Institute, and it was now the main part of the work of the London County Council: more than half of the money the Council spent *viz.* eleven millions a year—was spent on education. As to street improvements, he thought they would do the London County Council justice and agree that in recent street improvements the Council was gradually bringing about a better state of things architecturally in London. The Council claimed, and had received, the greatest possible assistance from the Royal Institute of British Architects: they believed that co-operation between the two bodies was likely to be productive of good to both and of benefit to London. They must not, however, always expect to feel satisfied with what the London County Council did, and he knew that there had been occasions when architects had had to find fault with them. For instance, on the question of the alignment of the northern front of the Strand he remembered the appeals of the Institute, and he was sorry that those appeals fell on deaf ears, not for want of sympathy, but on account of the cost involved on the ratepayers. Nevertheless, the London County Council had shown a strong desire during the last few years to improve London architecturally, and they were endeavouring to do so in conjunction and in harmony with the views of architects generally. Business and private interests must to a large extent, he was afraid, hinder the architectural development of a great city like London. We cannot expect, unless we have a dictator like, say, Mr. John Burns, to have things all our own way, but he looked forward, as he knew others did, to a time when we might have in this country, if not a dictator, at least a Minister of Fine Arts, who might give us some lead and direction in matters of taste. The chief difficulty of the London County Council was in regard to the control of buildings. They had had during the past ten years 80,000 new buildings to deal with, and 143 miles of new streets, and their duty was, as far as possible, to see that those new streets were laid out wisely and well, and the buildings constructed in a proper manner. He knew that many of them thought that the London County Council tinkered too much with the Building Acts, and there were those who did not agree with the attempts made to amend those Acts: but he would not say more, as it was a thorny subject. The Institute, whose health he was about to propose, was certainly the foremost Institute in the architectural world, and he was glad to see that it had received royal approval so lately as last year in the matter of its Supplemental Charter, which he trusted would be a matter of satisfaction to all members of the Institute. With the toast he coupled the name of the President, Mr. Ernest George. To few men had been given the great happiness of achievement which had crowned the President's career, whether as designer, as archi-

tect, as painter-etcher, as water-colourist. Since he took the Royal Academy Gold Medal some fifty years ago his progress had been remarkable. With Mr. Norman Shaw and Nesfield, he recognised the unworthiness of the architecture and decoration of the early Victorian period, and by his great ability and keen appreciation of the best traditions of art he had contrived by his work to inspire the younger generation with better ideals.

The President, Mr. ERNEST GEORGE, responding for the toast, said: We celebrate this year our seventy-sixth anniversary, and it is seventy-two years since, under its then President, Earl de Grey, the Institute of British Architects received its Royal Charter. Since our gathering last year the most important incident is that His Majesty has been pleased to grant us the new or Supplemental Charter for which we applied. This enables us to make rules for the better ordering of our house for the regulation of ourselves, and, we hope, for the benefit of the community. The said revision of the Charter and By-laws is the result of a movement that stirred, if it did not divide, our camp, Architects, especially those in the provinces, found that work which should come to them too often went to auctioneers and others who ventured to include architecture in their sphere of usefulness. In our enlightened metropolis some will get not only their groceries, but architecture and decorations from the Army and Navy Stores, from their upholsterers, or from like professors of our art. This is a trouble, but it must be met by keeping our own work at a high level, and by a growing perception of what is good on the part of the public. To have all architects licensed or registered has been proposed, though this would not prevent the employment of outsiders; we should also have to admit all sorts and conditions of those in practice. We prefer to insist that in future all shall enter through the schools, obtaining their diploma or certificate which shall distinguish the architect from the quack, and we look for further legislation to accentuate the difference. The change will come gradually by a wise organisation of our training schools, bringing all into line and demanding that a certain standard of efficiency shall be attained for those who would enter our Guild. This will be the preparation for Associateship, and our Fellows will be chosen only from those who have passed the schools with a sound knowledge of the constructive art, thus ensuring the public against ignorance and incompetence. A Board of Examiners cannot guarantee that a man is an artist. To meet the exigencies of the hour the Charter makes provision for a new class, to be styled "Licentiates," under which head we hope to receive into the Institute the large number of practising architects who have outgrown the days of schooling and examinations. Till of late the Institute has not been an educational body, having helped only by the awarding of prizes and

travelling scholarships. A distinct advance has been made in the system of training, and our young men will start with a better equipment than their seniors enjoyed. We hope they will do better work. Students of ability are coming to the front every year and carrying away our scholarships. It would be a grand thing for these promising men, and a public gain, if some of these had an opportunity of carrying their studies further in a higher school, acquiring a knowledge of what is really great in Art. A special school has been suggested for these diploma men, amongst whom a distinctive prize, a "Prix de Rome," would be awarded. We feel that Englishmen may have their School of Rome, and be under the influence of the noblest monuments, as well as Frenchmen, Germans, and Americans, who have that advantage. A British School of Rome exists, and with its members we have been conferring. It is doing admirable work. It consists of archaeologists, savants, professors, and men of letters, and they cordially invite us to join them in any project we may have. Their present arrangements would not accommodate us, or meet the requirements we have formulated for our Architectural School; but an amplification of the present institution would please us better than to start a separate venture. Our Committee which has been considering this scheme will shortly have a definite proposal to bring forward. We should like to think that in time painters, sculptors, and architects will be comrades in such a school. Ways and means are always an important feature in any enterprise: we have funds which may fairly be employed in this educational scheme, which is one that may appeal to generous donors who are interested in the growth of art amongst us. Hitherto the general public has declined to know anything about architecture as a fine art. A good building has not always been appreciated, nor a bad building always found out. There are indications of a growing knowledge in the matter, and of a higher criticism, and this, I am sure, will be responded to by ourselves. Buildings that may be classed under the head of architecture remain much in the minority. But if taste improves we may find even the speculator giving us honest buildings on simple lines, instead of jerrywork with foolish ornament. As a rule the community gets what it wants; our hope is that it will learn to want the best. For the execution of work we have skilled craftsmen, and our admirably furnished technical schools will increase knowledge and power. These schools we value most as providing evening classes for the practical mechanic: they are not a substitute for a good system of apprenticeship. There is with the schools always a danger that a boy gaining a useful training in colour, in modelling, or drawing (most helpful to him in his craft) will think that he must, with this smattering, become an art student, paint pictures, produce statues, or become an architect—thus swelling the ranks of the useless unem-

ployed. A good mechanic is a nobler object than a bad architect. It is disturbing to think what will be the future of our many promising men who are starting with every advantage, and with a sound knowledge of their calling; there seems hardly enough work to go round. We have fallen upon bad times, and, I believe, with few exceptions, architects' offices and builders' shops are very quiet. Those who should be building houses either have not the money, or are spending it on motor-cars or on Old Masters! We are waiting for the world to mend. Fortunately, public works and municipal works are not feeling a similar check. We are only just realising that our cities are not all that they might be. We have beautiful buildings, but they occupy positions as if by accident rather than design, for the most part hemmed in often by mean surroundings. We owe much to our Government for the Town Planning Bill, by which in time we hope to gain healthy and open spaces, dignified approaches, and the beauty that comes of a well-studied "lay-out" with architectural treatment. Changes must come by degrees to the already crowded cities, but when new ground is broken and new suburbs are taken in hand builders will conform to some well-studied plan. We owe much to Mr. Henry Lever, our guest to-night, for his generous endowment of a school of architecture for the special study of town planning. In the interests of art we architects must be willing to sink some of our individuality for the sake of continuity and harmony, symmetry and balance. We have been too anxious on each narrow frontage to stamp our own mark. Our personal originality is not a matter of importance requiring a public memorial. A great thing is to be prepared beforehand for future developments, and we are formulating for general guidance rules that should be observed and which will generally apply to such scheming. The possibilities of our own city are being studied, while our Allied Societies are considering their own several cities and towns with a view to their best development; they will then be ready with advice when changes are required. The Bill of Mr. John Burns gives us the opportunity of making representations, criticisms, or suggestions before any new scheme is sanctioned, and we hope to use a helpful influence. We have made a good fight from time to time in the interest of some valued building or monument to save it from destruction, or from being "Grinethorped." We have sometimes failed in our immediate object, but good has been done. We have shown the honest Philistine that there is a second way of viewing things, and that to many the intrinsic beauty of a subject is a real possession that must not be carelessly swept away. The æsthetic side has been too often overlooked where changes have been made for convenience and economy, when a noble conception might have been realised. Curiously, the American architects in conference have just made

inquiry of us as to the British rules or regulations for securing architectural treatment or style. With regret we replied that every man is a law to himself—no regulations deal with the quality of beauty: it is not taken into account. We are thankful for the appointment of the Royal Commission for the Preservation of Ancient Monuments, which is under the chairmanship of Lord Burghclere, and on the Council of which is our Vice-President, Mr. Leonard Stokes: while Mr. Forsyth is vigilant on the Council of the National Trust for Places of Historic Interest. We have a Building Act which we are all supposed to know intimately. It was simple once, but it has become overlaid with laws till it is now as big as the catalogue of the British Museum. It is being revised and enlarged, and it proposes to spare architects responsibility for their work. It will define for us all details of construction for the insides of our steel-framed buildings, as well as for the party-walls and front walls which should be under its regulation. The work of the architect's office will be transferred to the multitudinous overworked clerks of a public office, causing delays that will be disastrous to building operations. We have urged the objections to such a drastic change, and I believe our arguments will be graciously considered in Committee. Our Vice-President, Mr. Edwin T. Hall, has been indefatigable in his efforts in this cause. An Act would be simpler that defined the things that must *not* be done in building. Steps are now being taken to secure the protection of "copyright" to the works of architects equally with those of the painter, the sculptor, and the literary man. At the various International Conferences this has been insisted on, the British Section only showing indifference to the matter. Now, at the representation of our Institute, the Foreign Office has practically accepted the principle, and Mr. Belcher and Mr. John W. Simpson are ably pleading for Parliamentary ratification of the Berne Convention, which included architecture with the other arts. Plagiarism and the borrowing of ideas will perhaps remain as general as at present, but our drawings and studies will be our own, as a painter's rough sketches are his own, although he may sell the picture from which they were made. The ownership will be clearly established in face of sundry legal decisions in the past. The client pays for the house we build him, and not for the processes we may employ in the making of it. A good client lately showed me with pride a group of cottages that seemed familiar, though in strange surroundings. These, he said, are copied from those you did for me on the other side of the park, and I had not the heart to tell him this was an act of piracy. The copyright for which we ask will secure to us our documents as well as other privileges of which we have doubtful possession at present. Last year we had the honour of conferring our Royal Gold Medal upon M. Honoré Daumet, who was also our

guest. This year it has been decided, with His Majesty's approval, that the Medal be given to Dr. Arthur J. Evans, in recognition of his discoveries in Crete, a priceless addition to our knowledge of the past. He has devoted his life and means to the great work of exploration. Dr. Evans would be with us now but that he is burrowing below ground in Crete. He comes to us in November to tell his story and to receive the decoration. Our Royal Institute may be reported as in a healthy and prosperous condition. Our roll of 2,300 members is larger than heretofore. We have our seventeen Allied Societies in the United Kingdom, three in South Africa, one in Canada, and one in Australia. We have been consulted on various matters by those in office, and we have an increasing influence, which I hope has been used for the general good.

SIR ASTON WEBB, R.A., *Past President*, proposed the toast of "The Guests," coupled with the name of Mr. W. H. Lever, M.P. He said that they liked to think that their guests came to them because they sympathised with and appreciated the noble art which it was the pride and glory of the members to practise. No one who worked with his brains and hands could afford to ignore sympathy and appreciation, and that was what they felt they had from their guests. In Sir L. Alma-Tadema they had one of their best and oldest friends: and as to Mr. Brock, much had already been said in expression of their great admiration for his fine work in the Mall. [After a brief reference to other guests, the speaker continued:] Mr. Lever had been a large employer of architects, and anyone who had been through the Wirral district of Cheshire would know that Mr. Lever had dotted that district over with beautiful houses, and that the large number of people he employed were housed in beautiful homes far superior to most employees' dwellings. Mr. Lever had also given help in a most practical way to the Liverpool University by asking the students to build three cottages for him, and he had given much help in regard to the advancement of town-planning, a subject in which he (the speaker) was greatly interested. If he might use a motto of Mr. Lever's he would say: As long as we have men like that we may trust bricks and mortar and not worry.

MR. W. H. LEVER, M.P., in reply, said he could understand why architects invited guests on such occasions, for they did not altogether wish to be left alone with themselves: it was better to have a client or two. Cruel Fate had made him a soapmaker instead of an architect. If he had any recreations one was architecture and building, and he had sometimes felt how much nicer it would have been if he had been the architect and his architects the clients: he should then have had the pleasure, as he knew they had—a pleasure which he as client only shared to some extent—of planning beautiful buildings and seeing them executed. But Fate had decreed otherwise, and he had to submit. He had an arrangement

with all architects who worked for him, and the result was he had yet to have his first quarrel with any; the arrangement was that faults in regard to any architectural work he was connected with were to be put down to the client, and any work that could be admired was to be ascribed to the architect. There were the Seven Lamps of Architecture, and he often thought there were three building ages for the architect. There was, first, the age when the architect imagined all the beautiful buildings he would design and superintend the erection of when he was a man—the cathedrals and town halls, &c.; that was the Age of Innocence. Then there was the age when he erected the buildings entrusted to him: that was the Prime of Life. Then there came the age when he was sorry, more or less, for all the work he had done, and that was Dotage. He was convinced that the more worthy an architect was, the more advanced he was in his profession, the more certain it was that he would go through these three ages. He would be filled with ideals when he was young; he would find in the prime of life how difficult it was to realise them—that he had always a client who sometimes, which from the architect's point of view ought not to be thought of at all, insisted upon the fact that a building was an investment on which there had to be a money return. That was a little point which gave rise to much irritation and annoyance, and which resulted in so many buildings being cut down from what they would have been but for this necessity. Such matters were of importance, and if attention were not given to them there would be no solvent clients left. There was the nasty practice of going into accounts, and the exact cost of a building had to be paid. These were some of the difficulties which existed to-day which he did not believe existed in past times to any large extent: but modern conditions had to be faced, and work done to the best of one's ability under those disadvantageous conditions. In looking at the cost of building, say three hundred years ago, he found that a building that now cost, say, £18,000 or £19,000, might then cost about £8 or £9, and that was explained in this way: the building-owner only paid for the right to get timber and material and could use the labour from his estate free, and the cost was apparently kept very low. A parallel of that sort of thing could be found, to some extent, if the London County Council turned its employees upon the erection of its new Hall without charging the cost of this labour; or if the great railway companies did the same on the works they executed. That was how seemingly cheap buildings were erected in those days when there was such a lavish use of oak and so on. The labour cost nothing, or, rather, was not always charged against the building. Those days were gone, and the problem to-day was how to get really beautiful buildings without the necessity for having rich clients. He had always sympathised to a certain extent with

the jerry-builder, for he felt he was more sinned against than sinning. His clients' tastes were not elevated, and he built what he had found a certain class of people wanted, at a rent they could afford to pay: a little parlour, a little porch, and so on. If the jerry-builder went to an architect he would find that the architect, rightly and properly, refused to do anything but good work, and would not produce cheap plans that would violate the traditions of good art. The jerry-builder was, therefore, thrown back on plans he made in his office and which suited his particular clients. Could not something be done in the matter? Mr. Eison some time ago made a surprising proposal for about the lowest form of building—something about moulds in which cement had to be squatted. How such a suggestion came from a man like Mr. Eison he could not think. The initial cost for moulds would have to be so great that unless an enormous number of houses from one mould were turned out the attempt to greatly cheapen would be a failure on that ground alone. But between such a form of building and the beautiful Elizabethan cottages, with their charming doorways and windows and so on, there was a great gap. Was it not worth while for architects to try and get some form of building which would be beautiful, adapted to the needs of the time, built with material available in our time—material not available a hundred years ago—and which would supply warmth in winter and coolness in summer, and be at all times an ideal home within the means of the people who had to inhabit it? We should think of the people crowding together into one-roomed dwellings while there were thousands of costly houses empty, just because people had not the means to live in them. He believed that we in our day and generation would not be living up to the standard fixed for us—fixed by those who went before us—if we did not devote ourselves to considering the material available at our hands to-day and the cheapest form in which we could adapt it to our needs, without vulgar monotony. Whilst we were taking our examples and finding our best illustrations of what we wanted to produce from buildings erected centuries ago, we were, perhaps, neglecting the means at our hands to-day. In the case of the clothes we wear, modern appliances and machinery had given us cloth infinitely better and cheaper than cloth ever was at the time the architectural masterpieces were erected, because advantage had been taken of the machinery and materials now available. And there was no monotony in our clothes; nay, there was greater variety than ever our forefathers had. He thought we ought to be able to get beauty without elaborate detail; for beauty depended more on form than on elaboration, and more on proper construction than on ornament. We could have, and we ought to have, great beauty produced under modern conditions without monotony—with infinitely greater variety than was ever possible before—by availing ourselves

of what modern science and art placed at the disposal of architects to-day to enable them to solve this great problem. We were now dragging along, and our suburbs were made ugly by the style of houses put up. There was to-day no escape from costliness, except by monotonous ugliness, as anyone who experimented would find that a departure from the present system of thin walls and ugly houses meant buildings which could not be put up on a commercial basis, and were, therefore, out of the reach of the investment-builder. There was no profession he had more to do with than the architectural profession, and none in which he had greater interest. No profession occupied a more honourable place in the life of England to-day or could do more for our homes in the future. In conclusion, he had the honour to propose the health of the President. He made Mr. Ernest George's acquaintance many years ago, and he had always been a great admirer of his work, for Mr. George had done much to solve the difficult problem of making a home that was really a home beautiful in all its parts, and yet convenient for modern usages, without degenerating into the appearance of town halls or public institutions such as workhouses, as was so often the case. Mr. Ernest George had realised the ideals of the English home—beautiful in every way—and they had reason to be proud of their President, as he had reason to be proud that at Port Sunlight they had some beautiful examples of his work.

The President having briefly replied, the company separated.

"Diploma" Course of Architectural Training.

On the motion of Mr. John W. Simpson, *Vice-President*, the Council at their Meeting last Monday passed the following resolution: "That the Committee charged with the consideration of the project for a School of Architecture in Italy be further empowered to consider the possibility of instituting a higher or 'Diploma' course of architectural training in England."

The R.I.B.A. Form of Contract.

The Council desire to call the attention of members to the following letter from the Secretary of the National Federation of Building Trades Employers of Great Britain and Ireland:—

31 & 32 Bedford Street, Strand: 28 April 1909.

To the Secretary R.I.B.A.,—

DEAR SIR,—I am desired by my Committee to invite the attention of your Council to what appears to be a growing practice of stating at the beginning of bills of quantities that the conditions of contract will be those agreed between the R.I.B.A. and the Builders' Institute, the while subsequent conditions are inserted in the quantities which vary the said agreed conditions of contract.

As those subsequent conditions are probably

repeated in the Specification there is danger that a confusion will arise which would make it extremely difficult to say what are the exact terms of the contract between the parties.

My Committee deprecates such a practice, and hopes your Council will agree with the view that it should be stopped, and will use influence accordingly wherever practicable,—Yours faithfully,

A. G. WHITE, *Secretary*.

Ilford Emergency Hospital Competition.

The following correspondence has been handed in for publication:—

9 Conduit Street, W.: 24th April 1909.

To The Chairman, Ilford Emergency Hospital,—

DEAR SIR,—I am instructed by the Council of this Institute to write to you with reference to this Competition. When the particulars were first issued Dr. Greene was named as the assessor. It will be in your recollection that this Institute wrote to you pointing out that this was contrary to general practice where architects were asked to compete, and pressing for the appointment of an architect as assessor. Your Governors very courteously met this and appointed Mr. Percy Adams, F.R.I.B.A., in due course, and this fact was notified to competitors.* The drawings were sent in, and Mr. Adams made his award, placing the design of Messrs. Armstrong & Wright first.

My Council are quite aware that you stated that "the Governors do not bind themselves to carry out any set of plans," but this is only a common form which is often inserted. There is no question, however, that the almost universal practice is that the architect selected by an assessor as first should be appointed to act for the new building, and it is beyond question that the assessor and competitors in this Competition had that in view.

My Council are informed that after the assessor's award the drawings were submitted to Dr. Greene (whose name had been withdrawn before the Competition), and that on his advice another architect has been appointed to carry out the work.

My Council feel quite sure that your Board would desire to do what is strictly equitable and to follow the general custom, and in this belief my Council feel that they have only to draw your attention to the facts of the case to be convinced that you will reconsider the whole matter and appoint as your architects those gentlemen who in fair competition were placed first. Of course after you have appointed them they would naturally make any modifications in their design or follow any other instructions that the Governors might give them in respect of the carrying out of the works.—I am, dear Sir, yours faithfully,

IAN MACALISTER,
Secretary R.I.B.A.

* See Correspondence, JOURNAL, 9th May 1908, p. 414.

The Editor of the Journal. 19th May 1909

To the Secretary R.I.B.A.

DEAR SIR.—With reference to your letter of the 24th ult. allow me, in the first place, to say that it was the earnest desire of the Governors to appoint one of the pre-nominated designers, not only to carry out the first section of the hospital, but also subsequent additions, and most careful consideration of the designs submitted was given, in order that if possible some arrangement might be suggested to Messrs. Armstrong & Wright, which would do justice to them as well as to the designer whose plans were ultimately accepted. The Governors, however, met with this difficulty:—

Messrs. Armstrong & Wright's designs did not in any way commend themselves to the Governors (ten of whom are medical men who have had considerable hospital experience), and most extensive modifications in their plans would have been necessary to give effect to the Governors' requirements; in fact it was decided that those requirements could not be carried out without re-drawing nearly the whole of the plans. On the other hand, the plans submitted by the architect who will be entrusted with the carrying out of the first section being, with a few unimportant exceptions, in every respect suitable, the Governors in common honesty could not invite Messrs. Armstrong & Wright to so modify their designs that the plans when re-drawn would have been to all intents and purposes copies of another man's work.

Ever since the competition was suggested, the Governors have endeavoured to meet as far as possible the wishes of competitors, but it was all along clearly pointed out that the Governors would not bind themselves to carry out any set of plans.

The Governors have thoroughly appreciated the labours, not only of the designers successful in securing the premiums (who had at least some return), but also those of the other competitors, and while some of the conditions of the competition did not commend themselves to a number of the competitors, the Governors who did everything possible to meet objections, and to adopt the wishes of your Institute, rightly maintain that they have carried out their part in the strictest spirit of fairness, at the same time bearing in mind that they were dealing with money received from the public, and were therefore discharging a semi-public trust.

I hope these explanations will serve to satisfy your Council as to the course the Governors have felt compelled to adopt, but if any further explanations are required I shall be most happy to write you again. I may add that although Dr. Greene has been and is still our expert medical adviser, the Governors alone have accepted entire responsibility for the course which has been followed.

Again thanking your Council for their courtesy and advice, I am, yours faithfully,

B. BAILEY, *Chairman.*

"Registered" Architects

The Ottawa Chapter of the Ontario Association of Architects have addressed the following circular letter to members of the Ontario Association:—

The members of the Ottawa Chapter of the Ontario Association of Architects, in virtue of the incorporation and under the power of the Act of Incorporation of the Ontario Association of Architects, have decided that in future, in all forms of business, advertisements and all signatures to documents, they will make use of the prefix "Registered" to the word "Architect."

The prime reason for so doing is that it will soon practically give the members of the Ontario Association of Architects that recognised legal status in the public eye which has been sought, without success, by further legislation in the restricted use of the designation of an "Architect."

They are further convinced that, as a result of such action if carried out by the members of the Association throughout Ontario, it will greatly stimulate effort and encourage students entering the profession to seek to pass the qualifying examinations called for by the Association in order to attain registration as members, and so result in great good to the profession at large.

To-day no one is hardly recognised by the public as a competent accountant unless he can legally sign himself as a "Chartered Accountant"—and without larger legal authority than our Association, yet they have, by the use of the prefix word "Chartered," gained the full recognition of the public for their Association as the standard of ability required in an Accountant; and the prefix word "Registered" has an equal value for Architects as the word "Chartered" has for them.

This Chapter is fully satisfied that delay to act in this direction, in terms of the Act under which we are incorporated, is responsible almost entirely for the listless interest felt by the Architects of Ontario in the work of the Association and for so many having failed hitherto to join it. Again, the divided opinion in the Association as to the wisdom of seeking further legislative help in this matter forces them to the conclusion that it is wise to use the power they have before asking for more.

With these convictions, the members of the Ottawa Chapter have decided to act at once without further delay, and now ask you to give this matter your favourable consideration and to join with them in giving practical effect, throughout Ontario, to the regular use of the prefix word "Registered" in your professional practice as a legally qualified Architect.

The late Thomas Mellard Reade 1.

Mr. T. Mellard Reade, *Fellow*, elected 1878, died on the 26th ult., in his seventy-eighth year. Mr. Reade was a Past President of the Liverpool Society, and represented that body on the Council of the Institute in 1890-91. Mr. Reade was not only an architect of high standing in the Liverpool district, but had won for himself a distinguished place in the field of science by his geological studies. The following biographical details are collected from Mr. Alyn Lyell Reade's volume published in 1906, *The Reades of Blackwood Hill*, a copy of which was presented to the Library by the late Fellow:—

Thomas Mellard Reade, younger son of William

James Reade and Mary his wife, daughter of Thomas Mellard, was born 27th May 1832, at 31 Mill Street, Toxteth Park, Liverpool, where his father had at that time a small school. When he was ten years old he was sent to an "Academy" kept by the Rev. John Nevins in Liverpool. He remained there about a year, and early in 1844 began to attend a school kept by the Rev. William Giles at Seacombe in Cheshire.

About the end of 1844 he left school and entered the offices of Messrs. Eyes & Son, of Liverpool, a well-known and very old-established firm of architects and surveyors, as a pupil. On completing his pupilage there he became a draughtsman in the office of Mr. Henry Horner, another Liverpool architect. On 31st January 1853 he entered the Engineer's Office of the London and North Western Railway Company at Warrington. He remained in the employ of the Company for seven years, becoming principal draughtsman in the northern division of the civil engineering department.

In 1860 he commenced private practice in Liverpool as an architect and civil engineer. In 1865 he took Mr. George W. Goodison, C.E., into partnership. Mr. Goodison had been a pupil of Alfred Taylor, C.E. (1834-64), whose widow Mr. Mellard Reade married in 1866. Messrs. Reade and Goodison carried out several important sewerage schemes at Much Wollton, Walton-on-the-Hill, Birkdale, and elsewhere during their partnership, which terminated in 1874. From 1865 until April 1900 Mr. Mellard Reade acted as surveyor to the estate of Nicholas Blundell of Crosby Hall, who died in 1894 and under whose will he was nominated with Mr. Oswald Walmesley of Lincoln's Inn as a trustee of the unsettled estates. He laid out the residential estate of Blunkellsands in 1865, and has lived there himself since 1868. From 1877 to the end of 1880 he acted as surveyor to the Great Crosby Local Board. He was appointed architect to the Liverpool School Board soon after its formation in 1870, and designed and superintended a large number of their public elementary and industrial schools, &c., and made extensive additions to many others. He also acted as architect to other public and private schools in various parts of the country, and in addition carried out a good deal of architectural and engineering work of a more general character. In 1862 he published *Suggestions for the Formation of a New Style of Architecture* (John Weale). He also contributed numerous unsigned articles on Liverpool architecture to the pages of *Porcupine* at the request of Hugh Shinnin, the editor. In 1890 he was elected President of the Liverpool Architectural Society, and in that capacity had much to do with the arrangements for the formation of the School of Architecture at University College, Liverpool. In 1871 he was elected an Associate Member of the Institute of Civil Engineers.

Mr. Mellard Reade, though from his boyhood

interested in science, more especially in geology, did not attempt any original work until he was approaching middle age. His earliest published writing on scientific subjects was a controversy in *Nature* for 1870 as to the mineral or fossil character of *Eozoon canadense*, with Dr. Dawson of McGill University, Montreal, who later became known as Sir William Dawson. His scientific papers and works, written almost entirely since 1870, number little short of two hundred, and copies of most of them, presented by the author himself, will be found in the Institute Library. The following notes on his scientific work are quoted from the *Liverpool Daily Post* of the 28th ult. :—

It is interesting to note how Mr. Reade's earlier work culminated in the elaborate volume which he published in 1886, *The Origin of Mountain Ranges considered Experimentally and Dynamically and in Relation to their Geological History*. In this volume Mr. Reade endeavoured to show that mountain ranges are the slow cumulative result of successive variations of temperature in the crust of the earth caused by deposition of sediment preventing the escape of the central store of heat, much as ridges arise in the lead lining of a pantry sink by successive floodings with hot and cold water over a term of years.

The value of this work was at once freely recognised by authorities not only on the Continent, but also in America and Australia, and is one which has permanently modified geological thought. The Geological Society of London, of which he was elected a Fellow in 1872, awarded him the Murchison Medal in 1896.

Much in the same way as Charles Darwin followed up his earlier volume on the *Origin of Species* by a companion volume on the *Descent of Man*, so did Mr. Reade in 1903 publish another volume entitled *The Evolution of Earth Structure with a Theory of Geomorphologic Changes*, in which he further defined and illustrated his views. . . .

His earlier works dealt with glacial and post-glacial geology, chiefly in Lancashire, which he was led to ascribe rather to fluctuations or pulsations in the level of the earth's crust than to any merely glacial action; and it is noteworthy how, in his papers, it can be seen that this led on to investigations into the extent of denudation in geologic time, as in a paper for which he received special thanks in an autograph letter from Charles Darwin. His later work on the metamorphism of rocks under combined heat and pressure resulting in slaty cleavage, much of which was done in collaboration with Mr. Philip Holland, F.I.C., was all connected with the working out of the main theory in connection with which his reputation will go down to posterity.

He was one of the old school of self-taught scientific men whose labours have contributed so much to the advancement of science in Britain, and whom the rapid accumulation of exact knowledge and consequent specialisation is tending to displace in favour of men trained in the schools. His work represents the leisure of an active professional life.

Although neither a mathematician nor a highly trained physicist, yet he had a strong instinctive grasp of mechanical and dynamical principles which, added to a habit of cautious and accurate observation, enabled him to hold his own in the most advanced fields of geological thought, and to detect fallacies in the work

of those mathematicians to whom figures are an end in themselves and not a mere instrument in the pursuit of knowledge.

Mr. Reade's eldest son, Mr. Mellard Treleven Reade, has been for many years in partnership with him, and is continuing his practice.

The late Henry Dare Bryan (17).

By the death of Mr. Dare Bryan of Bristol, at the early age of forty-one, the architectural profession in the West of England loses one of its most brilliant and influential members. Mr. Bryan's ill health had been a source of anxiety to his friends for some time, and an operation was determined upon which it was hoped would have afforded permanent relief. About six weeks ago, however, he was again seized with illness, which terminated fatally on the 25th ult.

Henry Dare Bryan was born at Weston-super-Mare in 1868, and was afterwards articled there. He commenced practice in Bristol in 1890 and by his marked ability and industry soon attained a position at the very forefront of his profession. He was fortunate in securing a number of important commissions, and the increasing opportunities thus afforded him so rapidly developed his powers of design and ripened his artistic judgment as to ensure for him a very distinguished career, which, unhappily, has been ended by his untimely death. His work, which was invariably characterised by capable planning combined with originality of treatment and unusual refinement of detail, has had very considerable influence upon the architecture of Bristol, which has largely benefited by the liberal encouragement given to him and his brother architects.

Mr. Bryan was elected Fellow of the Institute in 1902, and as President of the Bristol Society of Architects served on the Institute Council during 1906-7 and 1907-8. The Bristol Society owes much to Mr. Bryan's untiring energy and devotion, and during the long period he acted as Hon. Secretary, and again as President, its influence has been widely extended. His enthusiasm and kindly nature had greatly endeared him to his colleagues and brother architects.

Seven years ago he was elected a member of the Bristol Fine Arts Academy, and he had ever since been most closely associated with that institution, his last important work being the preparation of sketch designs for the alteration and extension of the building. Among works completed from Mr. Bryan's designs are:—The Wesleyan Church at Westbury Park, additions to the Deanery, the Queen Anne Monument and other buildings at Minehead, the Western College, Highbury Chapel, the great business premises of Lennards Limited in the Queen's Road, and a number of school buildings in Bristol and elsewhere, the latest and most important being the Merrywood Elementary Schools, Bed-

minster, which are admirable examples of school design. His work is also readily recognised in many charming houses, restaurants, business premises, and decorative interiors in the district.

A widow and one son are left to mourn his loss in common with many friends who thoroughly appreciated his abilities and sterling qualities.

Mr. Edwin T. Hall has been appointed by the Council to represent the Institute at a Conference which is being organised by the Engineering Standards Committee to consider the desirability of a Standard being adopted for stoneware, fireclay, and other similar pipes.

At the Paris Salon this year two Medals have been awarded to Englishmen—one to Mr. Edgar Bundy, R.I., in *Painting*; the other to Mr. John W. Simpson, in *Architecture*, for a drawing entitled "The Roedean School, Pensionnat de Jeunes Filles à Brighton."

COMPETITIONS.

Grimsby Town Hall Competition.—The Competitions Committee have received satisfactory explanations in respect of each of the conditions of this Competition which appeared to them objectionable.

Berkshire County Council Offices Competition.—The Institute Council have received a satisfactory reply to their suggestions for the amendment of Paragraph 1 of the printed conditions.

IAN MACALISTER, *Secretary R.I.B.A.*

MINUTES. XV.

SPECIAL GENERAL MEETING, 24th May 1909.

At a Special General Meeting summoned by the Council under By-laws 60 and 61, and held Monday, 24th May 1909, at 8 p.m.—Present: Mr. Edwin T. Hall, *Vice-President*, in the Chair; 35 Fellows (including 8 members of the Council) and 31 Associates (including 1 member of the Council):

The Secretary announced the business of the Meeting—viz. to consider the proposals of the Council for the revision of the By-laws under the new Supplemental Charter granted under Royal Letters Patent dated 21st December 1908.

The new Charter and Draft By-laws, a copy of which had been sent to every member of the Institute residing in the United Kingdom, having been formally laid on the table, were taken as read.

The Chairman reminded members that Associates had the right of speaking upon the proposals, but that Fellows only were entitled to vote.

The By-laws being taken in numerical order (as far as No. 27, when the Meeting adjourned) were put to the Meeting separately, and various points raised being discussed and answered, in the result it was

RESOLVED, That Nos. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 26, be approved as presented in the Draft, and adopted.

As regards No. 3, it was

RESOLVED, That in clause (a), line 4, the words "Honorary Secretary or" shall be inserted after the words "by the President and"; further, that in clause (b), line 3, the word "Secretary" shall be altered to "Honorary Secretary."

As regards No. 12, it was

RESOLVED, That in line 5 the words "he resides" shall be altered to "his office is situated"; also, that in line 6 the word "seven" shall be altered to "fourteen"; further, that in line 10 the words "and voting" shall be inserted after "twelve being present."

As regards No. 18, it was

RESOLVED, That By-law 18 shall be redrafted to make it accord with the sense of the previous clause that Licentiates pay no "entrance fee or contribution."

With reference to No. 24, where members are liable to be penalised for dis-regarding "a published Resolution of the Council," the Chairman undertook on behalf of the Council that existing published Resolutions should be carefully reconsidered in order to provide against the application of this By-law in cases where penalisation is not contemplated.

As regards No. 25, it was

RESOLVED, That in lines 8 and 9, the words "a copy of the same" shall be altered to "a statement of the charge"; further, that the concluding words of the By-law—viz. "if they so decide"—shall be omitted.

As regards No. 27, a proposition that the two Past Presidents to form part of the Council should be the two immediate Past Presidents was put to the vote and lost (Ayes 9, Noes 18). A further proposition that the Council should consist of forty-two members instead of forty, so as to increase the number of Associate Members from four to six, was put to the vote and carried (Ayes 16, Noes 6). Whereupon it was

RESOLVED, That in line 1 of By-law 27, the word "forty" shall be altered to "forty-two"; further, that in clause (a), line 2, the word "four" shall be altered to "six."

On a proposal that the debate should be adjourned to Monday, the 7th June, Mr. George Hubbard, F.S.A. [F.], having stated that he had already given notice of his intention to bring forward at the Business Meeting on that evening some questions on another matter which he anticipated would involve considerable discussion, the Chairman said that Mr. Hubbard's questions and the further consideration of the By-laws might both be placed on the Notice-paper for the 7th June: if the debate on the By-laws were not concluded at that Meeting, a further adjournment could be had to the 14th June.

The proceedings closed at 10.10.

BUSINESS GENERAL MEETING, 7TH JUNE.

At the Fifteenth General Meeting (Business) of the Session 1908-09, held Monday, 7th June, 1909, at 8 p.m.—Present: Mr. Ernest George, *President*, in the Chair; 88 Fellows (including 19 members of the Council) and 85 Associates (including 2 members of the Council)—the Minutes of the Meeting held Monday, 17th May [p. 496], were taken as read and signed as correct.

The decease was announced of Charles Morrison, *Hon. Fellow*, elected 1835.

The decease was also announced of Henry Dare Bryan, of Bristol, *Fellow*, and Thomas Mellard Reade, of Liverpool, *Fellow*. On the motion of Mr. John Slater [F.], seconded by Mr. Alfred W. S. Cross [F.], the regrets of the Institute at the loss it had sustained by the deaths of the above-named Fellows were ordered to be entered on the Minutes of the Meeting, and it was resolved that an expres-

sion of sympathy and condolence be sent on behalf of the Institute to their respective families.

The Secretary having formally announced the receipt of a number of books presented to the Library, a cordial vote of thanks was passed to the donors.

The following members attending for the first time since their election were formally admitted by the President—viz. Tom Norman Dinwiddie [F.], Edgar Hugh Woodcock [A.], Henry George Warren [A.], Allan Graham [A.], Robert Newton Vanes [A.].

The Secretary announced that William Brame Goodwin, of the class of Associates, had ceased to be a member of the Institute by resolution of the Council under By-law 20.

The Chairman having called upon the Secretary to read the Reports of the Scrutineers appointed to count the votes recorded for the election of the Officers, Council, and Standing Committees for the ensuing year of office, Mr. Maurice B. Adams asked on a point of order if Counsel's opinion had been officially taken with regard to the bearing on the elections or the circular letter, signed by the President, Vice-Presidents, and Hon. Secretary, issued to members in the envelope containing the balloting papers—whether Counsel's opinion had been taken, not only with regard to the validity of the elections as a whole, but also with regard to the specific names which appeared on the paper in particular.

The President having stated that he had no reason to suppose that the elections were not entirely in order, the Scrutineers' Reports were read as follows:—

Scrutineers' Reports.

976 voting-papers were received—432 from Fellows, 538 from Associates, and 6 from Honorary Associates.

The following are unopposed.—

PRESIDENT.—Ernest George.

HONORARY SECRETARY.—Henry T. Hare.

REPRESENTATIVE OF THE ARCHITECTURAL ASSOCIATION.—Henry Tanner, jun.

ADDITORS.—John Hudson [F.]; C. E. Hutchinson [A.].

VICE-PRESIDENTS.—*Elected*: Gibson, 732 votes; Blomfield, 636; Cross, 585; Dawber, 528.

Not elected: Simpson, 515 votes; Pick, 394.

(Signed) E. B. T'Anson, *Chairman*. Horace J. Helsdon,
R. Mauleverer Roe. Henry J. Wadling,
S. Keynes Purchase. William H. Burt,

Scrutineers.

MEMBERS OF COUNCIL.—*Elected*: Lanchester, 652 votes; Ricardo, 602; Graham, 558; Malloes, 516; Hubbard, 513; Newton, 505; Stokes, 504; Waterhouse, 464; Hall, 456; Slater, 447; Foisyth, 446; Macartney, 441; Gorch, 420; Clarke, 413; Wimperis, 406; Burnet, 404; Lutyens, 397; Prentice, 384.

Not elected: Ogden, 368; Solomon, 359; Flockhart, 357; Biewill, 352; Pite, 351; Quennell, 348; Farrow, 346; Cave, 336; Robson, 331; Jemmett, 310; Mackenzie, 301; Horsley, 299; Woodward, 297; Macdonald, 287; Wilson, 281; Dunn, 275; Blane, 264; Tubbs, 255; Cooper, 237; Snell, 206; Downing, 204; Berry, 197; Warren, 195; Perks, 159; Blow, 122; Nield, 81; Doll, 70.

(Signed) S. B. Russell, G. Richards Julian,
E. Goldie, Arnold S. Tayler,
Arthur W. Kenyon, H. S. East,
H. P. Monckton, E. B. T'Anson, *Chairman*,
Scrutineers.

ASSOCIATE MEMBERS OF COUNCIL.—*Elected*: Wilson, 495 votes; Munby, 429; Wills, 392; Reilly, 375.

Not elected: Greenslade, 371 votes; Green, 366; Gammell, 360; Hamp, 232; Warwick, 206; Smith, 204.

(Signed) W. H. Woodhoffe, Herbert Wigglesworth,
Harold Griffiths, S. Keynes Purchase,
Guy Church, E. B. T'Anson, *Chairman*,
Scrutineers.

REPRESENTATIVES OF ALLIED SOCIETIES.—*Elected*: Worthington, 744 votes; Dixon, 699; Patchett, 693; Lees, 666; Green, 626; Robinson, 620; Watson, 585; Brown, 577; Bell, 543.

Not elected: Hale, 506 votes; Howell, 439; Leitch, 315; Clyne, 290.

(Signed) Henry J. Wadling, R. Mauleverer Roe,
Horace J. Helldan, S. James Purchase,
William H. Burr, E. B. I Anson, *Chairman*,
Secretaries.

ART STANDING COMMITTEE.—*Fellows*.—*Elected*: Dawkins, 653 votes; Lutyens, 639; Hale, 613; Richards, 589; Gibson, 577; Lethaby, 567; Simpson, 555; Belfrage, 529; Waterhouse, 519; Hockhutt, 515.

Not elected: Lorrimer, 504 votes; Carr, 460; Forsyth, 455; Balfour, 442; Watson, 217; Roy, 158.

Associates.—*Elected*: Bodale, 667 votes; Green, 586; Lucas, 490; Tapper, 417; Bolton, 405; Warwick, 371.

Not elected: Anderson, 361 votes; Wood, 343; Davison, 325; Hamp, 320; Ayton, 263.

(Signed) Hy. V. Ashley, R. H. Mew,
R. H. Keir, J. W. Stanley Burnester,
C. E. Hutchinson, E. B. I Anson, *Chairman*,
Secretaries.

LITERATURE STANDING COMMITTEE.—*Fellows*.—*Elected*: R. P. Speers, 700 votes; H. R. Rickford, 693; Paul Waterhouse, 672; J. A. Gorton, 661; F. M. Stamp, 648; G. C. Hubbard, 594; A. W. S. Cross, 586; H. H. Statham, 578; R. E. Smith, 556; C. H. Townsend, 545.

Not elected: G. H. F. Plimond, 536 votes; F. T. Barrallay, 513; J. Bulmer, 488.

Associates.—*Elected*: W. H. Ward, 719 votes; P. L. Waterhouse, 702; W. I. Filmer, 680; W. C. Green, 677; A. J. Stratton, 611; H. Passmore, 523.

Not elected: F. Chatterton, 424 votes; C. E. Sayer, 346.

(Signed) Herbert Shepherd, Edwin H. Agutter,
A. Roland Conder, E. B. I Anson, *Chairman*,
C. Collias Robin, *Secretaries*.

PRACTICE STANDING COMMITTEE.—*Fellows*.—*Elected*: Hubbard, 600 votes; Clarke, 590; Cross, 555; Woodward, 524; Snell, 491; H. Tanner, jun., 490; Barry, 488; Perks, 449; Watson, 441; White, 437.

Not elected: Murray, 402 votes; Mathews, 384; Wilson, 366; Flint, 291; Satchell, 292; Moore, 278; Waymouth, 267; Monckton, 219.

Associates.—*Elected*: Porter, 516 votes; Tanner, A. W., 444; Hewitt, 408; Pearson, 388; Greenop, 387; Gunn, 378.

Not elected: Gammell, 376 votes; Langston, 347; Pryce, 345; Ayton, 317; Dickie, 284; Hack, 221.

(Signed) F. R. Gould Wills, Edward V. New,
H. A. Woodington, G. Church,
Lawton R. Ford, E. B. I Anson, *Chairman*,
Secretaries.

SCIENCE STANDING COMMITTEE.—*Fellows*.—*Elected*: Clarke, 706 votes; Searles-Wood, 694; Dunn, 672; Garbutt, 639; Adams, 632; Dicksee, 620; Peach, 620; Hooper, 593; Lewis-Solomon, 577; Perks, 574.

Not elected: Moore, 565 votes; Crompton, 525.

Associates.—*Elected*: Munby, 599 votes; D. L. Solomon, 563; Burrows, 529; Wonnacott, 483; Hewitt, 428; Young, 418.

Not elected: Markham, 401 votes; Angell, 370; Bennett, 324; Jacques, 248.

(Signed) Robt. C. Murray, Arthur F. Usher,
Frank E. Smees, E. B. I Anson, *Chairman*,
Secretaries.

The President having declared the Officers, Council, and Standing Committees duly elected in accordance with the regulations, Reports, a vote of thanks to the Secretaries for their labours in connection with the elections was passed by acclamation.

The following candidates were elected to membership by show of hands under By-law VI.—

AS FELLOWS

ARTHUR THOMAS BOLTON, F.R.S., 1858–83, 1885–87, 1893–1903; F.R.S., 1887–1895.

FREDERICK DAVID CLAPHAM, F.R.S., 1901.

HENRY ARTHUR CROUCH, F.R.S., 1893, 1901, 1902, 1906.

JOHN STANLEY HEATH, F.R.S., 1909.

EDWARD SKINNER, F.R.S., 1893; Corresponding, 1893.

PERCY LESLIE WATERHOUSE, M.A., 1893, 1894.

AS ASSOCIATES

DONALD MACPHERSON, GORDON, F.R.S., 1898, 1908; Member, Canadian, 1908.

JAMES CHARLES MORELL, F.R.S., 1901, 1902, 1908; Member, Melbourne, Victoria, 1908.

HAROLD BECKWITH RICHARDS, F.R.S., 1903, 1904, 1905, 1906, 1908; Member, M.D., U.S.A., 1906, 1907, 1908.

WILLIAM ARTHUR RIGG, F.R.S., 1903, 1904, 1906, 1907, 1908.

The following resolution was brought forward in accordance with notice by Mr. George Hubbard, F.R.S., viz.,

"That in the opinion of this Meeting the circular letter enclosed in the envelope accompanying the Voting Papers for Election of Candidates to the Council and Standing Committees does not correctly represent the policy of the members of the Institute as embodied in an adopted report at a General Meeting held at the Institute on 14th March 1907."

The resolution having been seconded by Mr. Wm. Woodward, F.R.S., and discussed, was voted upon by show of hands and defeated—Ayes 47, Noes 78.

A further resolution was moved by Mr. George Hubbard, viz., "That this Meeting desires that in future no circular letter be posted in the envelope containing the voting papers which has not first received the approval of the Council."

The resolution having been seconded by Mr. H. Hardwicke Langston, F.R.S., and discussed, an amendment moved by Professor Reginald Bloomfield, M.R.A., F.R.S., and seconded by Mr. Maurice B. Adams, F.R.S., that a By-law be drafted dealing with the powers of the officers of the Institute with regard to issuing circulars, was voted upon and carried—Ayes 69, Noes 16.

The amendment being then put as the substantive motion, the Meeting

RESOLVED, by 62 votes to 26 That a By-law be drafted dealing with the powers of the officers of the Institute with regard to issuing circulars.

The further business on the Agenda—viz., a series of questions to be asked by Mr. A. W. S. Cross, F.R.S., with reference to the circular letter referred to in Mr. Hubbard's first resolution—was not proceeded with, Mr. Cross having withdrawn the questions.

The Business Meeting being concluded, the President vacated the Chair in favour of Mr. Edwin T. Hall, *Vice-President*, who announced that the Special General Meeting for the consideration of the Draft By-laws, adjourned from the 24th May and arranged to take place that evening would, owing to the lateness of the hour, be further adjourned to Monday, 14th June, at 8 p.m.

The proceedings then closed, and the Meeting separated at 10 p.m.



THE SUPPLEMENTAL CHARTER 1908.—DRAFT BY-LAWS THEREUNDER
PRESENTED FOR THE CONSIDERATION OF THE INSTITUTE.—
DISCUSSION AT SPECIAL GENERAL MEETINGS, 24th MAY AND
14th JUNE 1909.—AMENDMENTS ADOPTED.

THE SUPPLEMENTAL CHARTER 1908.

**Edward the Seventh by the Grace of God of the United
Kingdom of Great Britain and Ireland and of the British
Dominions beyond the Seas King Defender of the Faith.**

To all to whom these Presents shall come Greeting :

Whereas His late Majesty King William IV. did by Royal Charter of Incorporation (hereinafter called the Original Charter) dated the eleventh day of January One thousand eight hundred and thirty-seven grant and declare that Thomas Philip Earl de Grey and such other persons who were then members of the Society therein mentioned or who should at any time afterwards become members thereof should form one body politic and corporate for the purposes recited in the Original Charter under the name of The Institute of British Architects with perpetual Succession and a Common Seal.

And whereas the Original Charter contained further provisions for the constitution and management of the said Institute and its affairs.

And whereas on the eighteenth day of May One thousand eight hundred and sixty-six Her late Majesty Queen Victoria was graciously pleased to command that the said Institute should thenceforth be styled the Royal Institute of British Architects (hereinafter called the Royal Institute).

And whereas Her said Majesty did by Her Royal Charter dated the twenty-eighth day of March One thousand eight hundred and eighty-seven (hereinafter called the Supplemental Charter of 1887) grant declare and ordain that certain provisions of the Original

Charter should be repealed and that the Royal Institute and the property thereof should be thenceforth administered in conformity in all respects with the Supplemental Charter of 1887 and the By-laws made or to be made thereunder.

And whereas a Humble Petition has been presented to Us on behalf of the Royal Institute setting forth among other things that it is expedient to make such provision in regard to the election of Licentiates of the Royal Institute and in regard to the qualifications for Fellowship of the Royal Institute and in regard to the certificates of membership of the Royal Institute and in regard to the educational functions of the Royal Institute as hereinafter contained.

Now therefore We having taken the said Petition into Our Royal consideration and being desirous of furthering the Gracious intent of Our Royal Predecessors and of promoting the advancement of the interests of the Royal Institute have willed granted and declared and We by Our Prerogative Royal and of Our Especial Grace certain knowledge and mere motion by these presents for Us and Our Royal Successors do will grant declare and ordain as follows (that is to say):—

1. The Council of the Royal Institute shall elect Licentiates of the Royal Institute in manner to be provided by By-laws. Licentiates shall be architects who have attained the age of thirty years and either (a) have been engaged as principals for at least five successive years in the practice of architecture or (b) have been engaged for at least ten successive years in the practice or the study of architecture. Unless otherwise determined by resolution of a General Meeting of the Royal Institute confirmed at a subsequent General Meeting held not less than seven nor more than twenty-eight days after the former meeting no person shall be elected as a Licentiate after the expiration of twelve months from the date of the coming into force of the first By-laws relating to Licentiates. A Licentiate shall be entitled to obtain a certificate of his election as a Licentiate subject to such conditions payments and obligations as the By-laws of the Royal Institute may from time to time prescribe and on ceasing to be a Licentiate shall on demand deliver back to the Council his certificate of election as a Licentiate. A Licentiate may use after his name the affix Licentiate R.I.B.A. A Licentiate shall not be a corporate Member of the Royal Institute nor shall he have any interest in or claim against the property of the Royal Institute nor be entitled

to vote at any meeting of the Royal Institute nor shall he be entitled to be present at or take part in the transaction or discussion at any General Meeting of any business relating to the Charter or the By-laws or the making adopting altering revising suspending or rescinding of any By-law but save as aforesaid he shall be entitled to be present and take part in the discussions at meetings of the Royal Institute. Subject to the provisions of this Our Charter By-laws shall define regulate and prescribe the conditions and mode of election of Licentiates and the payments to be made by them and their privileges obligations and advantages.

2. After the date of this Our Charter no person shall save as hereinafter provided be admitted a Fellow of the Royal Institute unless he shall at the time of admission be either (a) an Associate of the Royal Institute or a person who has passed an examination qualifying for admission to the class of Associates or (b) a Licentiate who has passed such examination or examinations as may from time to time be prescribed by the Council as a qualification for the admission of Licentiates to the class of Fellows. Provided however that the Council shall have power to elect and admit as a Fellow any architect who shall have attained the age of thirty years and shall have been engaged as a principal for at least seven successive years in the practice of architecture as to whom the Council may resolve that it is desirable to elect and admit him as a Fellow.

3. Every certificate of membership granted to a Fellow or Associate of the Royal Institute shall be termed a diploma.

4. Subject to the By-laws for the time being the Council shall formulate and from time to time alter and amend a scheme or curriculum for education in architecture and may appoint in relation thereto such boards or committees (whether or not consisting wholly of members of the Royal Institute) as may from time to time be prescribed by By-laws and the Council may apply the funds of the Royal Institute in making provision for and furthering and developing any such scheme or curriculum and in providing for lectures or teaching and for the holding of examinations in accordance therewith and for granting certificates in connection therewith and (subject to such exemptions as may be allowed by or in accordance with the By-laws) no person shall in or after the year One thousand nine hundred and thirteen become entitled to admission to the Final Examination for Associateship of the Royal Institute unless he shall

have passed through a course of study under or in accordance with such scheme or curriculum and shall have passed such examinations in relation to the subjects comprised in that course of study as shall from time to time be prescribed by or in accordance with the By-laws.

5. In this Our Charter the expression "the Council" means the Council of the Royal Institute.

And We do also further will and ordain that subject to the provisions contained in this Our Charter the Original Charter so far as unrepealed and the Supplemental Charter of 1887 shall have full effect and validity and We do hereby confirm the same accordingly.

In Witness whereof We have caused these Our Letters to be made Patent. Witness Ourselves at Westminster the twenty-first day of December 1908 in the eighth year of Our Reign.

PROPOSED AMENDMENTS TO THE BY-LAWS.

[N.B.—In order to show clearly the changes proposed, three separate types are employed :

(a) All matter proposed to be omitted is printed in this small type.

(b) All matter proposed to be left unchanged in the existing By-laws is printed in this medium type.

(c) **All matter proposed to be added is printed in this large type.]**

I. Membership.

1. Every candidate for admission to the Royal Institute shall make and subscribe a statement:—1st. That he is eligible under the Charter and By-laws; 2nd. That he is willing, if elected, to be bound by the Charter and By-laws, and by Regulations made as hereinafter provided.

Associates.

2. Every person desirous of qualifying for candidature as Associate must pass or have passed the Examination or Examinations required by the Royal Institute under the provisions of the Charter and By-laws; and according to a standard fixed, and Regulations made, from time to time by the Council. The examination for candidates for Associateship, which shall be held at such times and places as may be appointed or approved by the Council, shall be written, graphic, and oral: and shall relate to the history of architecture; the characteristics and details of architectural styles; the nature, properties, and application of building materials; sanitary science; the principles and practice of construction; the design and arrangement of

buildings ; professional practice ; and such other subjects as the Council may from time to time determine.

3. **Save and except those whom the Council may elect in accordance with the Charter**, every person, desirous of being admitted as Fellow or Associate, must be proposed according to the Nomination Form for his Class. The Christian name, surname, and place of residence and place or places of business of each candidate, shall be inserted in his Nomination Form ; and this Form must be subscribed by him, and, except as hereinafter otherwise provided, by at least three Fellows, who shall certify their personal knowledge of him. The Nomination Form must be accompanied by a separate written statement by the candidate, giving particulars of his professional education and, in the case of a candidate for Fellowship, of his works ; and also by a separate written statement by one Fellow who has signed the Nomination Form, giving particulars of his acquaintance with the candidate as to his professional education and, in the case of a candidate for Fellowship, with his works. A candidate for Associateship must have passed, and must in his separate written statement declare that he has passed, the Examination or Examinations required by the Royal Institute under the provisions of the Charter and By-laws.

Fellows and Associates.

- (a) In the case of a Non-Metropolitan architect who, being desirous of admission, is a member of any Society in alliance with the Royal Institute as hereinafter provided, the Nomination Form may be signed by one Fellow of the Royal Institute, and by the President and Secretary of the Allied Society of which the candidate is a member.
- (b) In the case of members of The Architectural Association (London) desirous of being admitted as Associates, the Nomination Form may be signed by one Fellow of the Royal Institute, and by the President and Secretary of The Architectural Association.
- (c) In the case of a British architect not residing in the United Kingdom, the candidate for election may be proposed according to the Form A1, the Nomination Form being accompanied by testimonials from well-known persons as to his professional position and character.
- (d) In the case of any candidate for membership not being personally acquainted with the number of Fellows herein required to propose him, the Council shall, if satisfied with his qualifications, have power to nominate him, and to dispense with the separate written statement to be made by a Fellow as herein provided.

Non-Metropolitan architects.

Members of The Architectural Association (as Associates).

British architects not residing in the United Kingdom.

By the Council in certain cases.

4. Every nomination of a candidate as Honorary Associate must state his Christian name, surname, and place of residence, and must be subscribed by him, and by at least three Fellows who shall certify their personal knowledge of him.

Hon. Associates.

5. Every proposal for the election of an Honorary Fellow must be made either by the Council or on the nomination of any twelve Fellows, and must give the Christian name, surname, titles, and address of the candidate, with a statement of the grounds on which he is recommended.

Hon. Fellows.

Hon. Corr.
Members.

6. Every proposal for the election of an Honorary Corresponding Member must be made either by the Council or on the nomination of at least three Fellows, and must give the Christian name, surname, titles, and address of the candidate, with a statement of the grounds on which he is recommended.

Licentiate

7. Every person desirous of being admitted as a Licentiate must be proposed according to the nomination form of his class in manner similar to that hereinbefore provided in respect of Fellows and Associates, but his nomination form may be subscribed by any three members, whether Fellows or Associates.

Every candidate for admission as a Licentiate who satisfies the Council that he is eligible under the Charter and who is in the opinion of the Council a fit and proper person shall be admitted as prescribed in By-law No. 12. A Licentiate when and as soon as he is otherwise eligible as a Fellow may before the 31st December 1920 be admitted for nomination to that class when he shall have passed such examination as the Council may from time to time prescribe, in which case he must be nominated and submitted for election in all respects as prescribed for other candidates for the Fellowship.

Interval be-
tween nomi-
nation and
election.

8. The nomination of every applicant for admission to any class of membership or to the class of Licentiate must be forwarded to the Secretary, or in the case of a Dominion, Colony, or Dependency through the Local Honorary Secretary if any appointed by the Council, for submission to the Council, who shall inquire into the fitness and qualifications of the applicant so nominated; and in the case of a nomination of any person residing in a district or province where there is an Allied Society as hereinafter defined, but whose nomination has not been forwarded through such Society, the Secretary shall send notice thereof to such Allied Society, and invite observations thereon. The name and address of every applicant for candidature shall be suspended in the Meeting-room and published in the *Journal* of the Royal Institute, with a notification that any objection or other communication must be sent to the Secretary for submission to the Council within a period from the date of such publication to be fixed by Regulation of the Council. If, after due investigation of the claim of such applicant and of any objection thereto, the Council approve him and find him to be eligible and qualified according to the Charter and By-laws, he shall be admitted to candidature, and his nomination shall be signed by the Chairman of the Council Meeting at which such nomination is approved. The nomination shall be read at a General Meeting and forthwith suspended in the Meeting-room of the Royal Institute until the day of election. The name and address of the candidate, with the names of his proposers, shall be printed in full in the circular convening the Meeting at which such election is to take place. Any communication respecting applicants for admission to candidature, or respecting candidates for election, received by the Council shall be treated as confidential.

Elections.

9. The election of candidates shall (except in the case in which special provision is made in *By-law* 9, **By-Laws 3, 7, 10, and 12**) take place at Business Meetings only, and in no case until due notice thereof has been given in the circular convening the Meeting. Notice of election.

10. The voting at elections **of candidates** shall be by show of hands, and a candidate shall be elected if supported by a majority of those present having a right to vote and voting at such election. Provided always that if a requisition in writing signed by seven or more Fellows and Associates (the majority of whom shall be Fellows) **Fellows and Associates of whom not less than seven shall be Fellows (the total number of signatures being not less than twelve)** be delivered to the Secretary not less than fourteen clear days before the Meeting at which such election is to take place, that the votes for the whole of the candidates, or for one or more specified candidates, be taken by voting papers, then the election or elections of such candidates shall be so conducted. Voting papers shall then be issued to all Fellows and Associates resident in the United Kingdom, and shall be returned to the Secretary, so that the same shall be received by him at the latest on the Thursday evening before such Business Meeting as aforesaid, folded and enclosed in a sealed envelope, bearing on the outside the signature and Royal Institute serial number of the member voting. The Council shall appoint not less than three Scrutineers, the majority of whom shall be Fellows, and of whom two shall form a quorum, and such Scrutineers shall be summoned by the Secretary to meet at the premises of the Royal Institute, and at such Meeting he shall deliver to them the said envelopes, which shall be opened and the voting papers taken therefrom without being unfolded, the Scrutineers adopting such further measures as they may deem fit to prevent the identification of the voters. The Scrutineers shall then examine the voting papers, count the votes, and report to the Royal Institute at any General Meeting the names of the candidates elected—negative votes in the proportion of one negative vote to four affirmative votes excluding from election. The decision of the Scrutineers, or a majority of them, shall in all matters relating to an election be final. Method of election.

Provided always that when the Council of the Institute receive a unanimous recommendation formally submitted by the Council of any Allied Society that a practising member of the profession is eligible and worthy of being elected as a Fellow, the Council shall, during the five years from the date of approval of this provision by the Privy Council, have power to elect him, if in their opinion his work be of sufficient merit. The Council shall also have the power to elect annually to the Fellowship without ballot the President or President-elect of any of the Allied Societies who may be eligible and apply for admission.

11. In case of the non-election of any candidate proposed to be elected by a show of hands, no notice shall be taken thereof in the Minutes of the Meeting. No candidate who has been excluded from election shall again be proposed within a period of twelve calendar months. Non-election.

12. The name of any candidate whom the Council are empowered under the Charter to elect either as a Fellow or Licentiate, together with the names of his proposers, shall be sent to every Election of Fellows and Licentiates by the Council.

member of the Council, and if he be practising out of London to the Council of any Allied Society of the province in which he resides, not less than seven days before the meeting of the Institute Council at which his name is to be submitted for election.

Every such candidate for the Fellowship receiving the unanimous vote of those present and voting at a meeting of the Council, not less than twelve being present, shall be declared duly elected, subject to By-law No. 13.

Every such candidate for the Licentiatehip receiving an affirmative vote of two-thirds of those present and voting, and in any case of not less than twelve, shall be declared elected, subject to By-law No. 13. Such voting in both cases shall be by show of hands.

Acquiescence
in election
and the de-
clarations

13. When a candidate is elected, the Secretary shall inform him of his election and shall send him a copy of the Charter and By-laws, and no elected candidate shall be entitled to the rights and privileges of membership **or as a Licentiate** until he shall have signified his acquiescence in the election. No candidate for subscribing membership **or as a Licentiate** shall be entitled to such **any** rights and privileges until he has also signed and returned to the Secretary the Declaration. A, B, ^{or} C **or D**, and has paid his entrance fee **and first annual subscription or contribution**.

Formal ad-
mission.

14. Every member **or Licentiate** who has complied with the preceding By-law 13 shall be formally **introduced and** admitted, at the first General Meeting at which he may be present, by the President, or the Chairman of the Meeting, who, addressing him by name, shall say—"As President [or Chairman of this Meeting] "I hereby admit you a — (naming class) of The Royal Institute of British "Architects." And every such member shall at such Meeting sign, according to his Class, the Register of the Royal Institute. **Should the elected candidate be unable to attend a meeting within three months of his election he shall transmit by post to the Secretary his signature to be inserted in the Register.**

Retired Fel-
lows.

15. Any Fellow who has been a member for not less than thirty years, and has retired from practice, may, subject to the approval of the Council, be transferred without election to the non-subscribing Class of "Retired Fellows of the Royal Institute"; and in such case his interest in, or claim against, the property of the Royal Institute shall cease. A Retired Fellow shall be entitled to be present at, and to take part in, the discussions on any subject brought before the Meetings, but shall not be entitled to vote.

Fellows eli-
gible as Hon.
Associates.

16. Any Fellow who has retired from practice may, on his request, by Resolution of the Council, be transferred without election or entrance contribution to the Class of Honorary Associates. In the Register of Honorary Associates the names of such transferred Fellows shall be printed in italics.

Entrance Fees and Subscriptions.

17. The amounts of entrance fees and subscriptions shall be from time to time determined by Resolution of the Royal Institute.

- (a) The entrance fee of each Fellow shall not exceed five guineas, nor his annual subscription four guineas. In the case of a Fellow elected from the Class of Associates, his entrance fee shall not exceed two guineas. Provided always that the Council may during their pleasure dispense with the payment of an entrance fee in the case of Non-Metropolitan Fellows. Fellows.
- (b) The entrance fee of each Associate shall not exceed three guineas, nor his annual subscription two guineas. Associates.
- (c) The entrance contribution **fee** of each Honorary Associate shall be at least two guineas, which shall be appropriated to the Library Fund, and his annual subscription shall be two guineas. Hon. Associates.
- (d) **A Licentiate shall pay an annual contribution of one guinea, and for this shall be entitled (1) to receive a copy of the Kalendar and Journal of the Royal Institute; (2) to use the Institute premises, subject to any regulations or restrictions that the Council may make from time to time.** Licentiates.

18. Every subscribing member **and Licentiate** shall pay his entrance fee or contribution and first annual subscription within two months of the day of his election: otherwise, unless the delay be explained to the satisfaction of the Council, his election shall be void. Elections void.

19. Annual subscriptions **or contributions** shall be paid in advance: and, except as provided by By-law 18, shall be due on the first day of January in each year. Every subscribing member **or Licentiate** elected after the thirty-first day of October in any year shall not, after having paid his entrance fee or contribution and first annual subscription **or contribution** as hereinbefore provided, be required to pay any further subscription **or contribution** before the first day of the January twelvemonth subsequent to his election. Subscriptions and contributions: when due, &c.

20. Every subscribing member **or Licentiate** shall be liable for the payment of his annual subscription **or contribution** until he has either ceased to be a member **or Licentiate** under By-laws 22 to 25 inclusive, or has signified in writing to the Secretary his intention to resign, and has paid all arrears. Liability of members and Licentiates.

21. Any member **or Licentiate** whose annual subscription **or contribution**, due on the first day of January, is unpaid on the first Monday in March following shall receive notice thereof; and in the event of the said subscription **or contribution** not being paid on or before the first Monday in April following, the name of such member **or Licentiate** shall be forthwith posted in the Meeting-room of the Royal Institute, with a statement of the amount due; and shall remain there until the arrears shall have been paid, or until the member **or Licentiate** shall have become a defaulter under By-law 22. A registered letter, in the Form VI, shall be forthwith sent to every member **or Licentiate** whose name has been so posted. Subscription and contributions in arrear.

Defaulters.

22. Whenever any member **or Licentiate** shall permit his annual subscription **or contribution** to remain in arrear for a period exceeding one year, he shall become a defaulter, and a registered letter, in the Form VII, shall be sent to him: and, if the arrears be not paid within six weeks after the forwarding of such letter, the name of such defaulter shall be posted for six weeks in the Meeting-room of the Royal Institute: and if the arrears be not paid within that time, the defaulter shall be suspended or expelled by Resolution of the Council, in manner provided by By-law 25. Should any member **or Licentiate** be expelled for non-payment of his subscription **or contribution**, the Council shall have power, upon the defaulter giving to their satisfaction an explanation of the non-payment, to reinstate him in his former position as a member **or Licentiate**; and in such case to require the payment of all subscriptions **or contributions** which would be due had he continued a member **or Licentiate** up to the date of such reinstatement, and any costs to which the Royal Institute may have been put in consequence of the default.

Remission of subscription or contribution.

23. In the case of any Fellow or Associate member **or Licentiate** being disabled from ill-health, advanced age, or unable from other sufficient cause to continue to practise his profession, the Council may remit his annual subscription **or contribution** and any arrears due from him, and may further, if they thereafter find good reason for so doing, reinstate such Fellow or Associate member **or Licentiate** in his former position as a member **or Licentiate**.

Grounds for reprimand, suspension, or expulsion.

24. Any member **or Licentiate** contravening the Declaration A. B. or C. **or D, as the case may be**, signed by him, or conducting himself in a manner which, in the opinion of the Council, is derogatory to his professional character, or who shall engage in any occupation which, in the opinion of the Council, is inconsistent with the profession of an architect **or who shall refuse or neglect to be bound by a published Resolution of the Council** shall be liable to **reprimand** suspension or expulsion in manner hereinafter provided. Any member **or Licentiate** who may be convicted of felony shall, *ipso facto*, cease to be a member **or Licentiate** of the Royal Institute.

Investigation of charges and procedure for reprimand, suspension, or expulsion.

25. Any charge under the preceding By-law 24 preferred against a member **or Licentiate** must be in writing, duly signed, and forwarded to the Secretary, who shall lay it before the Council at their next Meeting. Such charge shall be entertained, considered, and determined by the Council only, but the Council shall have power to appoint a Committee of not less than three of their own body to investigate it, and to report to them thereon. Should the Council find *prima facie* grounds for further proceedings, the Secretary shall send, in a registered letter, to the member **or Licentiate** against whom the charge is preferred, a copy of the same, calling upon him to answer such charge in writing within fourteen days of the date of such letter, and, at their discretion, to appear in person before a Meeting of the Council, or of a Committee of the Council. In default of the member's **or Licentiate's** compliance with the request in such letter, or if his explanation be, in the judgment of the Council, unsatisfactory, the Council shall have power to

decree the **reprimand, the suspension** of such member **or Licentiate** for a period not exceeding twelve months, or his expulsion. No member **or Licentiate** shall be suspended or expelled unless the Council so decide by a majority of at least two-thirds of those present, and in any case by the vote of at least twelve of those present. If they so decide, the member **or Licentiate** shall be suspended, or expelled, and cease either temporarily, or permanently, as the case may be, to be a member **or Licentiate**, on the Chairman at the next General Meeting announcing such decision of the Council to the members present; and the Secretary shall thereupon communicate the fact by registered letter to such member **or Licentiate**. **In any case of such suspension or expulsion the fact shall be forthwith recorded in the JOURNAL of the Royal Institute, and, if the Council so decide, published in such newspapers as the Council may determine.** Provided always that, should any facts be subsequently brought to the knowledge of the Council which, in their opinion, shall justify them in rescinding their previous decision **in respect of such suspension or expulsion**, they shall have power to do so with the concurrence of at least the of number votes required for the suspension or expulsion as herein provided, and in such case the Chairman at the next General Meeting shall announce the decision of the Council to the members present: **and they shall publish such decision in the JOURNAL and the newspapers as before provided if they so decide.** In any case of such expulsion or rescission, as herein mentioned, the fact shall be forthwith recorded in the JOURNAL of Proceedings.

26. Diplomas of such forms and designs as the Council may **from time to time** prescribe, shall be granted to every Fellow *and* Associate who is or shall be entitled thereto under Regulations to be made from time to time by Resolution of the Royal Institute **and certificates of such forms and designs as the Council may from time to time prescribe shall be granted to every Licentiate who is or shall be entitled thereto.**

Diplomas and certificates.

The **Diploma or Certificate** of Membership shall bear the Common Seal of the Royal Institute, and be signed as provided by By-law 41. It shall remain the property of the Royal Institute, but shall be tenable by the member **or Licentiate** so long as he shall remain a member **or Licentiate**. When the holder shall cease to be a member **or Licentiate**, he shall, within seven days of demand being made in writing by the Secretary, return the **Diploma or Certificate**; but should he or his legal representatives fail to do so, or to explain his or their inability to do so to the satisfaction of the Council, the Council are hereby empowered to cancel the said **Diploma or Certificate**, and to sue for and recover the same with costs; and a notice of such cancelling shall be given by the Chairman at the next General Meeting, and shall be forthwith inserted in the JOURNAL of the Royal Institute **and published in such newspapers as the Council may determine.**

Constitution.

II. The Council.

27. The Council shall consist of not more than thirty-eight **forty** members, viz.—

(a) The President, four Vice-Presidents, an Honorary Secretary, eighteen **Fellows** as Members of Council, and four **Associates** as Associate-Members of Council.

(a) Chairmen for the time being of Branches of the Royal Institute within the United Kingdom, established as hereinafter provided.

(b) Two past Presidents of the Royal Institute.

(c) Presidents of the three Societies within the United Kingdom in alliance with the Royal Institute which on the 31st December of the year preceding the election contain the largest number of members of the Royal Institute. In the event of there being an equal number of such members in two or all of such Societies, then the Presidents of such of them as on the said date contain the largest number of Fellows of the Royal Institute. In the event of there being an equal number of Fellows in two or all, then the Presidents of such Societies as on the said date have the largest number of practising architects among their members.

(d) The Presidents of six other of the Societies within the United Kingdom in alliance with the Royal Institute selected as follows:—

The first six Presidents shall be of those Societies which on the 31st December of the year preceding the election contain the largest number of members of the Royal Institute. In the event of there being an equal number of such members in two or more of such Societies, then the provision applicable to the selection in Class (c) shall apply.

In subsequent years the Presidents, not exceeding six in any one year, of the remaining Societies shall be similarly selected until all the Societies in Class (d) are represented in regular rotation, and when all have been represented the process of rotation shall begin again and continue on the same lines.

In every case under (c) and (d) as a condition precedent to their nominations the Presidents of such Societies must be Fellows of the Royal Institute.

(e) One Fellow or Associate of the Royal Institute as representative of the Architectural Association (London).

Restriction on
eligibility to
the office of
President

28. No President **of the Royal Institute** who has filled the office for two successive years shall be again eligible for the Presidency until the expiration of two years from the termination of his tenure of office.

Eligibility to
the office of
Vice-President
and
restriction
thereon

29. Any Fellow who is or has been a Member of Council shall be eligible to serve as Vice-President, but no Vice-President who has filled the office for four successive years shall be eligible for re-election as Vice-President until the expiration of two years from the termination of his tenure of office.

30. The Honorary Secretary shall be eligible to be re-elected from year to year. He shall, subject to the direction and control of the Council, have the management of the affairs of the Royal Institute, and shall cause Minutes to be taken of the proceedings of General Meetings, and of Meetings of the Council, of the Boards of Examiners, and of the Standing and all other Committees of the Royal Institute, **provided always that no Honorary Secretary who has filled the office**

for six successive years shall be eligible for re-election as Honorary Secretary until the expiration of two years from the termination of his tenure of office.

31. Any Fellow shall be eligible to serve as a Member of Council. Any Associate shall be eligible to serve as an Associate-Member of Council.

Eligibility to
serve on the
Council.

32. Two weeks prior to the Annual General Meeting in May, the Council shall issue to every subscribing member in the United Kingdom **entitled to vote thereon** a list of members whom they nominate to the offices of President, Vice-Presidents, Honorary Secretary, Members of Council, and Associate Members of Council, **form the Council as provided in By-law 27.** for the ensuing year of office. Such list shall contain the names of at least twenty-two Fellows and six Associates as nominated for election as Members of Council and Associate Members of Council respectively, and the names of Chairmen of branches, of Presidents of Allied Societies, and of a member as representative of the Architectural Association (London). Any seven **twelve** subscribing **or more** members, of whom the majority shall be Fellows, **the majority in all cases being Fellows,** may nominate any other member **candidate** for any of the above-named offices **named in By-law 27 (a),** by delivering such nomination to the Secretary before the close of the Annual General Meeting, accompanied by a written undertaking by the nominee to serve if elected. The name of every member **candidate** so nominated shall be added to the said list, which, with such added names (if any), shall be the voting list for the election. The names of all candidates for election shall be printed in the same type and in alphabetical order. On the back of this list shall be printed directions for its use by the members: and any list which fails to comply with such directions shall be rejected by the Scrutineers, and the votes shall be lost. At the Annual General Meeting the members present shall elect by show of hands at least three **nine** Scrutineers, the majority of whom shall be Fellows. The Scrutineers shall have the direction of the election, their decision on any matter relating thereto being final, and a majority **five** of them shall be a quorum. The voting list shall be issued to all subscribing members in the United Kingdom **entitled to vote thereon** within one week after the Annual General Meeting, and shall be returned to the Secretary, at least seven days before the first General Meeting in June, folded and enclosed in a sealed envelope, bearing on the outside the signature and Royal Institute serial number of the member voting. The Scrutineers shall, as soon thereafter as may be convenient, be summoned by the Secretary to meet at the premises of the Royal Institute, and at such meeting he shall deliver to them the said envelopes. They shall then proceed to open the said envelopes and take the voting lists therefrom, without unfolding them, adopting such measures as in their discretion they shall deem fit to prevent the identification of the voters. The Scrutineers shall then open the said voting lists and count the votes, and shall report the result to the first General Meeting in June. The members who receive the most votes shall be declared to be elected at the said first General Meeting in June to the respective offices for which they were nominated, and shall enter upon their respective duties after the close of the last General Meeting in June. In the event of an equality of votes **for the President or Honorary**

Method of
election of
Council and
duration of
office.

Secretary or for the last place of the four Vice-Presidents or of the eighteen Members of Council or of the four Associate-Members of Council. the election of the members **candidates** so receiving such equality shall be determined by ballot of the members present having a right to vote and voting. The Council so elected shall remain in office until the close of the last General Meeting in June of the year following that in which they were elected.

31. In the event of the death or resignation of the President, the Senior Vice-President shall be the President.

In the event of the death or resignation of the Honorary Secretary, the Council shall issue to every existing member within the United Kingdom a notice thereof containing the names of the existing members who are eligible to nominate for the vacant office. Within two weeks of such issue, any twelve existing members of the Council, who are the majority shall be Fellows, may nominate to the vacant office any twelve existing members of the Council, by forwarding their names to the Secretary, accompanied by a written undertaking by the nominees to serve if elected. The Council shall, within one further week, issue to every existing member a voting list for the election, accompanied by a notice convening a Special General Meeting as provided in By-law 65, to be held within not less than seven or more than fourteen days of such notice. Such lists shall be returned to the Secretary at least three days before the date of such Meeting. The Council shall appoint one Fellow and one Associate to act as Scrutineers, and the Scrutineers, in addition to the members, shall count the votes, and report the result to the Special General Meeting. The form of voting list and the mode of procedure shall be similar to those provided in the case of the annual election. The members so elected at the next Special General Meeting shall enter forthwith on his office.

In the event of the number of members of the Council being reduced by death, resignation, or otherwise, below one-half of the full number prescribed in By-law 27, the Royal Institute shall proceed to elect one or more members to the vacancies, the procedure being the same as herein described for the by-election of the Honorary Secretary.

All members of the Council appointed as herein provided shall remain in office until the close of the last General Meeting in the following June.

Death or
resignation of
President.

33. In the event of the death or resignation of the President, the Secretary shall forthwith forward to every member of the Council a notice thereof, and at a regular meeting of the Council, held not less than fourteen days after the date of such notice, the Council shall elect one of the existing Vice-Presidents to fill the vacant office until the next Annual Election of the Council, and the Vice-President so elected shall forthwith enter on his office.

Death or
resignation of
Honorary
Secretary.

In the event of the death or resignation of the Honorary Secretary, the Secretary shall forthwith forward to every member of the Council a notice thereof, and at a regular meeting of the Council held not less than fourteen days after the date of such notice, the Council shall elect one of their members to fill the vacant office until the next Annual Election of the Council, and the member so elected shall enter forthwith on his office.

Death or
resignation of
Members of
Council.

In the event of the number of Members of Council being reduced by death, resignation, or otherwise, below one-half of the full number prescribed in By-law 27 (a), the Council shall issue to every member within the United Kingdom entitled to vote thereon a notice thereof containing the names of such Fellows whom they nominate for the vacant offices. Within two weeks of such issue, any twelve of such members, the majority in all cases being Fellows, may nominate to the vacant offices any other Fellows, by forwarding their names to the Secretary, accompanied by a written undertaking by the nominees to serve if elected. The Council shall, within one further week, issue to every member entitled to vote thereon a voting list for the election, accompanied by a notice convening a Special General Meeting as

provided in By-law 65, to be held within not less than seven nor more than fourteen days of such notice. Such lists shall be returned to the Secretary at least three days before the date of such meeting. The Council shall appoint Scrutineers, and the Scrutineers, whose decision shall be final, shall count the votes, and report the result to the Special General Meeting. The form of voting list and the mode of procedure shall be similar to those provided in the case of the Annual Election. The Members of Council so elected shall enter forthwith on their respective offices.

The President, Honorary Secretary, and Members of Council appointed as herein provided shall remain in office until the close of the last General Meeting in the following June.

34. The Council shall meet at the premises of the Royal Institute at least once in every month during the Session. Six **ten** members of the Council shall form a quorum. The President or any five members of the Council may, by letter to the Secretary, require an Extraordinary Meeting thereof to be called.

Meetings and
quorum.

35. Any Regulation made by the Council for carrying into effect the Charter and By-laws, and for the general management of the affairs of the Royal Institute, except as otherwise provided by the Charter, shall after notice given be reported to a General Meeting for confirmation by Resolution of the Royal Institute, and such Regulation shall be subject to repeal or alteration only at a Special General Meeting, to be summoned in the manner described in By-law 65, for the consideration of such repeal or alteration.

Regulations
by the Coun-
cil.

36. Any appointment by the Council of the Secretary, or other officer or servant of the Royal Institute, shall reserve to the Council the right to terminate such appointment on giving such notice, not exceeding six months, as may be fixed by the Council at the time of the appointment, and no appointment without such reservation shall be valid.

Power to de-
termine the
appointment
of officers and
servants.

37. The Council shall present a report on the state of the property and affairs of the Royal Institute to the Annual General Meeting, which report shall give an abstract of the proceedings during the official year, an account of the funds (including a balance-sheet of the receipts and disbursements for the past year properly audited), and an estimate of the income and expenditure for the current year. A copy of the report shall be issued to every subscribing member within the United Kingdom, at least one week before the Annual General Meeting.

Annual Re-
port, Balance-
sheet, and
Estimate.

38. The Council shall, unless otherwise directed by any deed or trust, have the power to invest any entrance fees, surplus income, funds, donations, or endowments, in such securities as trustees are permitted by the High Court of Justice to invest in, and in the stock or shares of the Architectural Union Company (Limited); and such investments shall form part of the property of the Royal Institute.

Investment of
moneys.

39. All money belonging to the Royal Institute and not invested shall be deposited by the Council, on account of and for the use of the Royal Institute, with a Banker in London or Westminster.

Banker.

Payments.

40. No sum of money exceeding £10 shall be paid on account of the Royal Institute except by a cheque of the Council, signed by three members thereof, and countersigned by the Secretary or other officer nominated by the Council.

Use of the
Common
Seal.

41. The Common Seal shall not be affixed to any deed or writing except at a Meeting of the Council, and then only by their authority; and such deed or writing shall after the Seal has been affixed be signed by the President or the Chairman of the Meeting, by two other Members of Council present, and by the Honorary Secretary, or in his absence by another Member of Council, and countersigned by the Secretary. **Every use of the seal shall be recorded in the Minutes.**

III. The Auditors.

42. The Royal Institute shall annually elect as Auditors one Fellow and one Associate, not members of the Council. Candidates shall be nominated for the office at the Annual General Meeting on the first Monday in May, and their names shall be appended to the list of the Council nominated for election. The Auditors shall have access at all reasonable times to the accounts and securities. They shall examine the securities and the annual accounts before the latter are submitted to the Annual General Meeting, and shall report thereon to the Royal Institute. In the event of the decease or resignation of an Auditor, another member of the Royal Institute shall be elected to the office by Resolution of the Royal Institute after notice given.

IV. The Secretary.

43. The Council shall appoint an officer who shall be "The Secretary of the "Royal Institute," and who shall be responsible to the Council and, subject thereto, shall have the management of the establishment and the conduct of the executive business of the Royal Institute.

V. Education and Examination in Architecture.

Board of
Education.

44. The Council shall annually appoint a Board of Education to deal with the education of pupils in architecture and to conduct such examinations as are required by the Royal Institute under the provisions of any Act of Parliament or of the Charters and By-laws.

The Board shall not exceed fifteen in number and shall consist of such subscribing members of the Royal Institute and such other persons as the Council may invite, including representatives of such teaching institutions as have accepted or may accept the scheme of the Council. The Council may, on the advice of the Board, invite other representative persons to act as advisory members of such Board. The Board shall have power to elect its own officers from its members and to draw up regulations for its procedure. The Board may conduct its own correspondence but shall take no public action nor incur any pecuniary responsibility.

The Council may on the advice of the Board appoint **Examiners and Visitors** in the United Kingdom or in any Dominion, Colony, or Dependency of the British Crown, and shall make such regulations in respect of their appointment and in regard to the payment of fees and expenses as they may from time to time determine.

Examiners
and Visitors.

The Board shall submit any scheme they may devise for education to the Council for their consideration, and if and when the Council shall approve such scheme the Board shall have the supervision thereof and shall annually report to the Council thereon and may submit any suggestions for variations thereof to the Council for their consideration. The scheme adopted by the Council and any variation thereof adopted by the Council from time to time shall be forthwith published in the JOURNAL of the Royal Institute. No such variation shall in any way prejudice any pupil in respect of any work done by him under the scheme existing previous to such variation.

Scheme of
Education to
be submitted
to the
Council.

Every Student who has passed the examination for that grade, instituted or to be instituted by Resolution of the Royal Institute, and shall have satisfied such other requirements as the Council may from time to time prescribe as applying to Students, shall be entitled to be registered as "Student of the Royal Institute of British Architects," subject to such conditions and to such restrictions as to continuance as the Council may determine; and a Register of such Students shall be kept setting forth their names in the chronological order in which they have passed.

Students-
R.I.B.A.

45. Every candidate for the Associateship, after the year 1913, before presenting himself for the Final Examination shall have either (a) passed through the course prescribed under the scheme adopted by the Council as above, or (b) proved to the satisfaction of the Board of Education that he has been otherwise properly trained as an architect.

Conditions-
precedent to
Final Ex-
amination.

VI. The Statutory Board of Examiners.

45. The Statutory Board or Boards of Examiners appointed by the Royal Institute under the provisions of the Metropolitan Building Act 1855 (now the London Building Act 1894), and other Acts of Parliament, shall consist of Fellows of not less than seven years' standing, to be annually elected by Resolution of the Royal Institute; and the Council may from time to time appoint such other persons as they may consider necessary, whether members of the Royal Institute or not, to assist such Board or Boards in the conduct of the Statutory Examinations.

VII. Ordinary Committees.

46. The Council shall have power to appoint **Boards and Committees**, for the purpose of investigating **dealing with** specific subjects connected with the objects of the Royal Institute; and the reports of such **Boards or Committees** shall be submitted to the Council in writing. Such **Boards or Committees** may respectively appoint one of themselves to act as Chairman and one or more as Hon. Secretary.

VIII. The Standing Committees.

47. Standing Committees for the promotion of the art, science, literature, and practice of the profession of Architecture shall be appointed annually.

Constitution. 48. The Standing Committees shall each consist of not more than twenty-one members, namely:—Ten Fellows and six Associates, to be elected annually in the manner hereinafter provided; and other members to be subsequently appointed by the Council.

Functions. 49. The functions of the Standing Committees shall be to consider and investigate any subject appertaining to the branches of the profession of Architecture with which they are respectively entrusted, and to make reports and suggestions thereon to the Council. The publication of such reports or suggestions, or abstracts thereof, shall be left to the discretion and management of the Council. The Standing Committees may make communications at a General Meeting by the direction or leave of the Council or Chairman of the said Meeting.

Officers, Meetings, and Quorum. 50. The Standing Committees shall each have the right to appoint from their own members a Chairman, Vice-Chairman, and one or more Honorary Secretaries, and shall meet at the premises of the Royal Institute at such intervals as they may deem desirable; and such Chairman or Vice-Chairman shall have power to summon a Meeting of his Standing Committee at any time he may think fit, subject in all cases to the convenience of the Council. Five members shall be a quorum.

Annual Election. 51. Four weeks prior to the Annual General Meeting in May, the Standing Committees shall each send to the Council a list of Fellows and Associates whom they suggest as suitable and eligible to serve on their respective Committees for the ensuing year of office. The procedure for the election, including the issue of a voting list by the Council, the nomination of other candidates, the preparation, issue, and return of the voting list, and the duration of the Committee, shall be as provided in By-law 32 for the Annual Election of the Council, so far as such provisions are applicable; and Scrutineers appointed as therein provided shall have the conduct of the election. The voting list shall be printed on paper of a colour distinctive from that of the voting list for the election of the Council.

Conduct of Proceedings. 52. The Standing Committees may conduct their own correspondence and business respectively, but shall take no public action nor incur any pecuniary responsibility.

Annual Report. 53. In the first week of April in each year the Standing Committees shall each forward to the Council a report of their proceedings during the official year, which report, or a summary thereof, shall be incorporated in the Council's report to the Annual General Meeting.

IX. General Meetings

The Session. 54. The Session shall commence on the first Monday in November in each year, and shall terminate in the following June, but it shall be in the power of the Council to vary the commencement and duration of the Session.

55. All General Meetings, excepting Special General Meetings, shall be held on Monday evenings at the premises of the Royal Institute. The chair at such Meetings shall be taken as soon after 8 o'clock p.m. as there shall be a quorum of twenty **forty** subscribing members present, of whom at least eleven **the majority** shall be Fellows. If such quorum be not constituted before 8.30 p.m. the Meeting shall not take place, and all notices in respect thereof shall be held to have lapsed. The Council shall, at or before the beginning of the Session, fix the dates for General Meetings (excepting Special General Meetings), and a card containing such dates shall be forwarded to every member. The Royal Institute may by Resolution after notice given vary the day, date, time, and place of Meeting.

Time and place of Meeting and Quorum.

56. The Chair at General Meetings shall be taken by the President, or in his absence by one of the Vice-Presidents, or in their absence by a Member of Council; failing whom, any Fellow whom the Meeting may elect shall take the Chair.

The Chair.

57. A printed notice of every General Meeting, stating the date and hour at which it is to be held and the business to be transacted thereat, shall be sent to every member **and Licentiate** within the United Kingdom at least seven days previously. Any General Meeting may by Resolution adjourn from time to time, but unless the adjournment be for a period exceeding seven days no printed notice shall be necessary. The proceedings at General Meetings shall be conducted in accordance with Regulations to be made from time to time by the Council.

Summoning and adjourning and conduct of Proceedings.

58. At least four Business Meetings, exclusive of the Annual General Meeting in May, shall be held during the Session at, as nearly as possible, equal intervals. At these Meetings elections for membership shall be taken, and any questions relating to the property or the management of the Royal Institute, or to any professional question, may be discussed thereat; but notice of any motion intended to be submitted to a Business Meeting must be given to the Secretary at least fourteen days before the date of such Meeting.

Business Meetings.

59. Questions relating to the property or the management of the Royal Institute or to any professional question shall be brought forward at Business or Special General Meetings only.

Questions and professional questions.

60. No Honorary Associate shall be entitled to vote in the election of any candidate for admission to the Royal Institute, or on any professional question.

Restriction on the rights of Hon. Associates.

61. The Annual General Meeting shall be held on the first Monday in May, to receive and consider the Report of the Council, and to appoint the Statutory Board or Boards of Examiners under the Metropolitan Building Act 1855 [now the London Building Act 1894], and other Acts of Parliament. A list of the attendances at the Meetings of the Council, of the Statutory Board or Boards of Examiners, and of the Standing Committees, shall be submitted to the Annual General Meeting.

The Annual General Meeting.

62. The Council may at any time call a Special General Meeting for a specific purpose, and they shall at any time during the Session be bound to do so on the written requisition of twelve **twenty** subscribing members, of whom the majority shall be Fellows, **the majority in all cases being Fellows**, which shall specify the nature of the business to be transacted, and no other business shall be discussed at such

Special General Meeting.

Meeting. A Special General Meeting shall be held within three weeks after the delivery of such requisition to the Secretary, **and at least seven days' previous notice thereof shall be sent to every member or Licentiate entitled to be present. The notice shall state the business to be discussed. Any member desiring to propose an amendment at such Meeting must specify the same in a notice to be delivered to the Secretary at least three days before the proposed Meeting.** If within half an hour **or after** the time appointed for such Meeting there be not **even forty** subscribing members present, of whom **even the majority** shall be Fellows, no Meeting shall take place, and all notices in respect thereof shall be held to have lapsed.

63. Should it appear to the Council at any time to be necessary for the convenience of business or in the interests of the Royal Institute temporarily to suspend the operation of any By-law, such suspension shall be dealt with in conformity with By-law 65.

Adoption,
suspension,
or repeal of
By-laws.

64. The adoption of any new By-law, or the alteration, suspension, or repeal of any existing By-law, may be proposed by the Council or **in writing** by any **twelve twenty** Fellows. In either case a Special General Meeting shall be convened in the manner prescribed in By-law 65 to consider the proposal.

62. A Resolution respecting the adoption of a proposed By-law, or the alteration, suspension, or repeal of any existing one, or of any proposal affecting the property or management of the Royal Institute or any professional question, shall only be carried at a General Meeting if there shall be present and voting at least twenty subscribing members, or when not less than eleven shall be Fellows, and if the same be supported by the votes of at least two-thirds of those present having a right to vote and voting thereon. **Provided always that when any such Resolution shall have been carried as aforesaid, it shall be suspended on a demand being made at the Meeting by at least six Fellows that a poll thereon shall be taken by voting papers.**

Resolutions
respecting
By-laws.

65. A Resolution respecting the adoption of a proposed By-law, or the alteration, suspension, or repeal of any existing one, shall be declared to be carried at a General Meeting if there shall be present at least forty Fellows; and if the same be supported by the votes taken by show of hands of a majority of the Fellows present and voting thereon. Provided always that the Resolution shall be suspended on a demand being made at the Meeting by at least twenty Fellows that a poll thereon shall be taken by voting papers. It shall also be suspended if the Council at their next Meeting demand that a poll thereon shall be taken by voting papers.

Resolutions
on property,
management,
or profes-
sional ques-
tions.

A Resolution on any proposal affecting the property or management of the Royal Institute or any professional question shall be declared to be carried if there are present at least forty members of whom the majority present shall be Fellows, and if the same be supported by the votes taken by show of hands of a majority of the members present having a right to vote and voting thereon.

Provided always that the Resolution shall be suspended on a demand being made as aforesaid.

Demand for
Poll

If the poll be demanded at the Meeting Scrutineers, of whom the majority shall be Fellows, shall then be appointed by the Meeting, and the Meeting shall be adjourned for a period of not less than fourteen or more than twenty-eight days.

If the poll in either case be demanded by the Council then the appointment of Scrutineers shall be made by the Council and the Meeting shall be deemed to have been adjourned for a period of not less than fourteen or more than twenty-eight days from the date of the Resolution of the Council demanding the poll. A voting paper containing the proposal submitted, together with an official report of the discussion, shall be printed and sent to all members having a right to vote thereon. Each voting paper shall be filled up, signed by the member, and returned to the Secretary, at least three days before the said adjourned Meeting. The voting papers shall be handed by the Secretary to the Scrutineers, of whom five shall be a quorum, and whose decision shall be final; they shall then count the votes and announce the result at the said adjourned Meeting. The said Resolution shall be declared to be carried if supported by a majority of the voting papers so returned; otherwise it shall be declared to be negatived.

A Resolution declared to be carried, and requiring under the provisions of the Charter or By-laws to be confirmed at a subsequent General Meeting, shall be deemed to be so confirmed provided it be by a majority of those present having a right to vote and voting thereon at the said subsequent General Meeting; or if a poll be demanded then by votes to be taken as herein provided. **Or if a poll has been demanded as aforesaid in respect of the Resolution of the first Meeting, then if the result of the voting papers is to confirm the Resolution carried at the first Meeting such Resolution shall be deemed to be confirmed by such voting papers and such adjourned Meeting shall be deemed to be "the subsequent General Meeting."** If the Resolution be negatived by the voting papers then in any case it shall be declared to be rejected.

Confirmation
of Resolution

The demand of a poll at a General Meeting shall not prevent the continuance of the Meeting for the transaction of business other than that on which such poll has been demanded.

In all cases, except as otherwise provided, the voting shall be by show of hands; and a Resolution of the Royal Institute so voted shall be declared to be carried if supported by a majority of those present having a right to vote and voting thereon.

66. The subject of a Resolution which has been submitted to a General Meeting and duly considered shall not be again submitted during the same Session without the previous consent of the Council.

Resolution
duly con-
sidered not to
be brought up
again during
same Session.

X. General Conferences.

67. The Council shall **may** make arrangements for Conferences, for the consideration of subjects of interest to the profession of Architecture, to be held sometimes in London and sometimes in the provinces.

XI. The Royal Gold Medal.

68. In the case of the Royal Gold Medal the Council shall announce to the members, at a General Meeting, at least four weeks before the Special General

Meeting at which the election is to be made, the name of the person they propose to submit to His Majesty as a fit recipient of that Honour; and any twelve Fellows, desiring to substitute any other name, shall deliver in writing to the Secretary a proposal signed by them, containing the name to be substituted, at least fourteen days before the day of election. If no name be so proposed for substitution before the said time, the nomination of the Council shall be submitted on the day of election to the Special General Meeting. If, however, any such substituted nominations be made, and be not accepted by the Council, the name proposed by the Council shall be first submitted to the Meeting; and if such name be not approved by Resolution, then the other names proposed as above, in the order of the date of nomination, shall be submitted. In any case the award shall be by Resolution of the Royal Institute.

XII. Studentships and Prizes.

69. The Council shall, subject to the terms and conditions of any deed of gift or trust, define the programmes and conditions of competition for such Prizes, Medals, Exhibitions, Studentships or Scholarships, as have been or may from time to time be established by the Royal Institute, or which have been or may hereafter be founded by private munificence and held in trust by the Royal Institute; and shall, by a deed or writing under the Common Seal, award the same, and shall announce such awards at the next General Meeting after the adjudication.

67. The Silver Medal of the Royal Institute for the best Essay on some specific subject relating to professional study or practice, and the Silver Medal of the Royal Institute for the best Illustrations or written material measurement or any important building in the United Kingdom or abroad, shall be offered annually, and shall, subject to such restrictions as may from time to time be determined, be open to all British subjects; and the said Medals may be accompanied by a sum of sums of money, in each case to be fixed by Regulations made by the Council.

68. The Soane Medallion for the best Architectural Design for some specific subject, with a sum of money for foreign travel, to be fixed by Regulations made by the Council, and paid in such manner as they may consider expedient, shall be offered annually, and shall, subject to such restrictions as may from time to time be determined, be open to all British subjects who are members of the profession of Architecture and under the age of thirty years.

XIV. Diplomas.

69. Diplomas or Certificates, of such forms and designs as the Council may prescribe shall be granted to every Fellow and Associate who is or shall be entitled thereto under Regulation to be made from time to time by Resolution of the Royal Institute.

XIII. Miscellaneous.

Privilege of
introducing
one Visitor

70. Each member shall have the privilege of introducing at any Ordinary Meeting, one Visitor, who shall enter his name in a book provided for that purpose, but the Council shall have power, on special occasions, to suspend this privilege on giving notice in the circular convening the Meeting.

Donations
and Bequests.

71. The name of every person who shall contribute to the Collection, the Library, or the general funds of the Royal Institute, shall be published in the JOURNAL of the Royal Institute.

Publications
Copyright.

72. Every Paper read or taken as read at General Meetings by any person shall be considered to be presented, and shall in consequence of such presentation become the property of the Royal Institute; and **may be published by** the Council may publish the same in any way and at any time that they may think proper, unless there shall have been a previous engagement with its author to the contrary. But should the Council not publish such Paper within eighteen months from its reception, the author shall have a right to publish it.

73. The Charter, Deeds, and Securities of the Royal Institute shall be kept in the custody of the Banker on behalf of the Council, in an iron chest, with three separate locks, each having a different key; and **one of** the keys thereof respectively shall be kept by the President, the Honorary Secretary, and the Secretary, one by each **respectively**.

Custody of
Charter,
Deeds, and
Securities.

74. The Common Seal shall be kept in an iron chest or safe at the offices of the Royal Institute; the two keys of the chest or safe being kept respectively by the Honorary Secretary and the Secretary, one by each **respectively, and the record of its use shall be entered in the Minutes**.

Custody of
the Common
Seal.

75. The Presidential chain and badge of office shall be placed in the custody of the President for the time being, who shall be responsible for their safety **safe at the offices of the Royal Institute**.

Cu-stody of
the Presi-
dential Chain
and Badge.

XVI. Branches.

76. Branches of the Royal Institute may be established according to Regulations to be made from time to time by the Council

XIV. Allied Societies.

76. Any Non-Metropolitan Architectural Society in the United Kingdom, in India, or in any **Dominion**, Colony, or Dependency of the United Kingdom, consisting in whole or in part of professional members, may **be at the discretion of the Council admitted to alliance**, subject to such regulations, limitations, and restrictions as may from time to time be prescribed by Resolution of the Royal Institute. be allied with the Royal Institute.

Societies
eligible for
alliance.

77. The constitutional rules or by-laws of Allied Societies shall be subject to the approval of the Council, and no addition thereto, or variation thereof, shall be made without previous notice to and approval by the Council.

By-laws of
Allied Socie-
ties to be ap-
proved by the
Royal Insti-
tute.

78. The Royal Institute shall not be responsible for any acts, expenses, or other liabilities which may be done or incurred by any Allied Society.

Di-claimer of
responsibility.
Voluntary
dissolution.

79. If any Society in alliance with the Royal Institute desire to withdraw therefrom, such Allied Society shall be at liberty to do so after three months' notice, and the Royal Institute may in like manner determine the alliance.

80. The Royal Institute shall, in each year, contribute to any **Non-Metro-politan** Allied Society not more than one-fourth of the annual subscription paid to the Royal Institute by each member thereof who is also a member of such Allied Society, in respect of and for his subscription thereto; but in no event shall such contribution apply in the case of any one member to more than one Allied Society.

Contribution
by the Royal
Institute.

XV. Interpretation.

81. "The Royal Institute" shall mean The Royal Institute of British Architects. "The Charter" shall mean the Original Charter so far as unrepealed, together with the Supplemental charter **Charters of 1887 and 1908**. "The Council" shall mean the Council of the Royal Institute of British Architects. "The Honorary Secretary" shall mean the one or more Honorary Secretaries of the Royal Institute as may from time to time be determined at any annual election, and in the event of there being more than one, any duty imposed on the Honorary Secretary shall be effectual if

performed by any one of them. "The Secretary" shall mean "The Secretary of the Royal Institute," as defined in By-law 43. "Non-Metropolitan Architect" shall mean an architect who has no office or place of residence within a radius of twelve miles of Charing Cross in the City of Westminster. "Non-Metropolitan Architectural Society" shall mean a Society having no place of meeting within the said radius of twelve miles.

XVI. The Forms of Declaration

82. A. Form to be signed by a Fellow.

I, the undersigned, having been elected a Fellow of The Royal Institute of British Architects, do hereby declare that I have attained the age of thirty years, and have been engaged as principal for at least seven successive years in the practice of Architecture; and, in consideration of my having been so elected, I promise and agree that I will not accept any trade or other discounts, or illicit or surreptitious commissions or allowances in connection with any works the execution of which I may be engaged to superintend, or with any other professional business which may be entrusted to me; that, having read the Charter of Incorporation and By-laws of the said Royal Institute, I will be governed and bound thereby, and by any alteration thereof which may hereafter be made until I shall have ceased to be a Fellow; and that, by every lawful means in my power, I will advance the interests and objects of the said Royal Institute.

"And in consideration of my having been so elected I promise and agree that I will not accept any trade or other discounts, or give or accept any illicit or surreptitious commissions or emoluments in connection with any works the execution of which I may be engaged to superintend, or on which I may be employed under any other person or with any other professional business which may be entrusted to me. I promise that I will not have any interest in any contract or in any materials supplied to any works on which I may be engaged. I further promise that I will not take part in any competition the conditions of which have been disapproved by the Council. Lastly I declare that I have read the Charter and By-laws of the said Royal Institute, and will be governed and bound thereby, and will submit myself to every part thereof and to any alterations thereof which may hereafter be made until I have ceased to be a member; and that, by every lawful means in my power, I will advance the interests and objects of the said Royal Institute."

B. Form to be signed by an Associate.

I, the undersigned, having been elected an Associate of The Royal Institute of British Architects, do hereby declare that I am engaged in the study [or practice] of Architecture, and have attained the age of twenty-one years; and, in consideration of my having been so elected, I promise and agree that I will not accept any trade or other discounts, or illicit or surreptitious commissions or allowances, in connection with any work the execution of which I may be engaged to superintend, or with any other professional business which may be entrusted to me; that, having read the Charter of Incorporation and By-laws of the said Royal Institute, I will be governed and bound thereby, and by any alteration thereof which may hereafter be made, until I shall have ceased to be an Associate; and that, by every lawful means in my power, I will advance the interests and objects of the said Royal Institute.

“ And in consideration of my having been so elected I promise and agree that I will not accept any trade or other discounts, or give or accept any illicit or surreptitious commissions or emoluments in connection with any works the execution of which I may be engaged to superintend, or on which I may be employed under any other person or with any other professional business which may be entrusted to me. I promise that I will not have any interest in any contract or in any materials supplied to any works on which I may be engaged. I further promise that I will not take part in any competition the conditions of which have been disapproved by the Council. Lastly I declare that I have read the Charter and By-laws of the said Royal Institute, and will be governed and bound thereby, and will submit myself to every part thereof and to any alterations thereof which may hereafter be made until I have ceased to be a member ; and that, by every lawful means in my power, I will advance the interests and objects of the said Royal Institute.”

C. Form to be signed by an Honorary Associate.

I, the undersigned,..... having been elected an Honorary Associate of The Royal Institute of British Architects, do hereby declare that I am not following the profession of an Architect, but am interested in the study of Architecture ; and, in consideration of my having been so elected, I promise and agree that I will be governed and bound by the Charter of Incorporation and By-laws of the said Royal Institute, which I hereby acknowledge to have read, and by any alteration thereof which may hereafter be made, until I shall have ceased to be an Honorary Associate ; and that, by every lawful means in my power, I will advance the interests and objects of the Royal Institute.

D. Form to be signed by a Licentiate :

“ I, the undersigned, having been elected a Licentiate of the Royal Institute of British Architects, do hereby declare that I have been for not less than ... years engaged that I am ... years of age, that I am not engaged in any other avocation than that of an architect, and in consideration of my having been so elected I promise and agree that I will not accept any trade or other discounts, or give or accept any illicit or surreptitious commissions or emoluments in connection with any works the execution of which I may be engaged to superintend, or on which I may be employed under any other person or with any other professional business which may be entrusted to me. I promise that I will not have any interest in any contract or in any materials supplied to any works on which I may be engaged. I further promise that I will not take part in any competition the conditions of which have been disapproved by the

Council. Lastly I declare that I have read the Charter and By-laws of the said Royal Institute, and will be governed and bound thereby, and will submit myself to every part thereof and to any alterations thereof which may hereafter be made until I have ceased to be a member; and that, by every lawful means in my power, I will advance the interests and objects of the said Royal Institute."

DISCUSSION.

Special General Meeting, 24th May.

MR EDWIN T. HALL, *Vice-President*, in the Chair.

THE CHAIRMAN, in formally presenting the Draft By-laws as above for the consideration of the Meeting, said that the principles which had guided the Council in framing them had already been approved by the Institute. He proposed to take them clause by clause in numerical order, and put them separately to the vote. Every member had the right to speak on them, but only Fellows could vote.

No. 1 and No. 2 were put and agreed to.

No. 3 being put, Mr. H. HARDWICKE LANGSTON [L.] having read the concluding paragraph of the first clause of the By-law, and also Clause *10b*, asked whether the Council were reserving to themselves, under Clause *10b* the power to elect an Associate or Licentiate without the written statement referred to in the opening clause. Again, it said "A candidate for membership"—might that not mean "candidate for Licentiate-ship?"

THE CHAIRMAN: No; membership means only Fellowship or Associate-ship; a Licentiate is not a member.

MR LANGSTON: But do the Council reserve to themselves the right of nominating an Associate who has not passed the examination?

THE CHAIRMAN: No, certainly not. That clause only provides for the case where a candidate does not know the requisite number of Fellows. The Council do not elect him; they merely nominate him.

MR LANGSTON: Yes; but the Council would then only nominate him to be a Fellow.

THE CHAIRMAN: To whatever class he is a candidate for. Mr. JOHN SLATER [L.] is satisfied with his qualifications. We sometimes have candidates for Associateship from the colonies who cannot find people to sign their papers; but the Council cannot nominate an Associate unless he has passed the examination.

MR LANGSTON: That is what I wanted to get clear; but the end of Clause *10b* states that the Council shall "dispense with the separate written statement to be made by a Fellow." The clause is a little ambiguous; you dispense with that written document by a Fellow, and you do not say he is to give any other written statement.

THE CHAIRMAN: We dispense with it because he does not happen to know a Fellow to give that written statement, and then the Council, if satisfied, nominate him for election and he is put up for election.

MR. H. SHEPHERD [L.]. In Clause *(a)* I notice that the "Secretary of the Allied Society" and in Clause *(b)* that "the President and Secretary of the Architectural Association" may nominate a member. I believe that is the only case in which a non-member of the Institute—a paid official—is allowed to sign a nomination paper. That seems a little irregular and unusual, and contrary to the conditions under which we supposed nomination papers were filled up.

THE CHAIRMAN: That is the old by-law; we have not varied that at all.

MR. SHEPHERD: I propose it should read "The Honorary Secretary, being a member of the Royal Institute of British Architects."

THE CHAIRMAN: May we say "President and Honorary Secretary of the Allied Society, both of whom shall be members of the Royal Institute?"

MR. SLATER: They may not have an Honorary Secretary. Mr. HENRY T. HARR: And the President and Secretary may not be members of the Institute.

MR. SLATER: I do not think we ought to alter the by-law. In case a non-metropolitan architect who is a member of another Society wants to join the Institute and he is not acquainted with the requisite number of Fellows required to propose him, it is distinctly laid down here that his nomination form will be in order if signed by one Fellow and by the President and Secretary of an Allied Society.

MR. SHEPHERD: My point is that the person who signs a nomination form for a future member of the Institute should himself be a member of the Institute.

MR. SLATER: No harm has accrued in the past from this clause.

MR. W. R. DAVIDSON [L.]: Might not the Council be given the power to nominate in these cases? But let the recommendation come from the Council, not from outsiders.

MR. MAX CLARKE [L.]: The difficulty may be got over altogether by deleting Clause *10b* because Clause *10a* covers it entirely.

THE CHAIRMAN: The object of the clause has been to some extent to pay a compliment to the Allied Society, and there is much to be said for it.

A MEMBER: The same objection might be taken to Clause *(b)*, because the Secretary of the Association is not generally a member of the Institute.

MR. K. GAMMELL [L.]: It seems slightly disrespectful to the Honorary Secretary of the Architectural Association that he is not to nominate with the President. It was probably a clerical error, and never really intentional.

THE CHAIRMAN: So far as *(b)* is concerned we can get over the difficulty. Will some one propose that in Clause *(b)* we alter "Secretary" to "Honorary Secretary"?

A MEMBER: Provided they are members of the Institute.

THE CHAIRMAN: But they are not always members.

MR. LEONARD STOKES: These clauses *(a)*, *(b)*, *(c)*, *(d)* were framed with the object of helping a man who has not three friends amongst the Fellows; in that case he goes to the President and Secretary of his Society. It is not with any idea of making it easy for the candidate.

MR. H. H. STATHAM [L.]: I take it that the addition of the word "Secretary" is merely a matter of form; the Secretary is the usual medium for communication.

MR. LANGSTON: But is it not rather strange that anybody, not being a member of a Society, should be able to nominate a candidate to that Society?

THE CHAIRMAN: We want to know that the candidate is an architect, and we want to know it from somebody competent to express an opinion, and it is perfectly competent for the President and Secretary of an Allied Society to express that opinion. If the candidate comes from the north, for instance, we may know nothing at all about him, so we put the responsibility of proposing him upon the local Society which is allied to us.

MR. GAMMELL: As regards the Architectural Association

it does seem slightly impolite to the Honorary Secretaries of that body that, holding the position they do, they are not asked to sign the form.

THE CHAIRMAN: We have settled that; we are dealing with Clause (a) now.

A MEMBER: May I suggest as regards Clause (a) that the wording be "by the President and Secretary on behalf of the Council of the Allied Society." It would show that he was recommended by the Council and not by individuals who were not members.

THE CHAIRMAN: If he is nominated by the Council of an Allied Society, and we reject him, it would be a great blot to the Council of that Society. The difficulty would be got over by saying "Honorary Secretary or Secretary" in Clause (a).

No. 3 having been passed as proposed to be amended by the Chairman, Nos. 4, 5, and 6 were respectively put and agreed to.

A MEMBER: On the latter part of No. 7, do I understand that Licentiates are to be admitted directly to the Fellowship without passing the Associates' Examination?

THE CHAIRMAN: No, on the contrary they have to pass a special examination for the Fellowship.

A MEMBER: They pass nothing to become a Licentiate; they pay a guinea and become a Licentiate. That appears rather unfair to the Associates.

THE CHAIRMAN: That point has been settled by the Charter.

Nos. 7, 8, and 9 were agreed to without further discussion.

No. 10 being moved, Mr. K. GAMMELL [A.], referring to the appointment of not less than three Scrutineers to count votes, objected to the proposed omission in line 16 of the words "the majority of whom shall be Fellows." Associates, he said, did not like to feel that any of their hard-earned privileges were being taken from them, and it seemed to him that the elimination of the words as proposed put it completely in the power of the Council not to have an Associate at all among the Scrutineers.

THE CHAIRMAN: On the contrary, the whole object of cutting that out is that they might all be Associates.

Mr. GAMMELL: But there is no guarantee that they will be.

THE CHAIRMAN: Nor should there be. In the existing By-law two of the Scrutineers must be Fellows. The Council thought there was no need for any distinction, and that the Scrutineers might all be Associates. It was in the interests of the Associates that the words were eliminated.

Mr. GAMMELL having expressed his satisfaction with the explanation, No. 10 and the following Clause, No. 11, were respectively agreed to.

Mr. H. SHEPHERD [A.], speaking on No. 12—which requires the name of any candidate whom the Council are empowered to elect to be sent "to the Council of any Allied Society of the province in which he resides."—suggested that the word "practises" should be substituted for "resides." It was not a matter of the candidate's residence, but where he was doing his work. Again, in connection with the same matter, he asked whether the seven days' notice to be given by the Institute Council was not too short a notice.

After some discussion on the first point, it was resolved, on the proposition of Mr. SLATER, that the phrase should read "in which his office is situated." As regards the length of notice, the CHAIRMAN stated that the Liverpool Society had already suggested that fourteen days' notice should be given. The question being put to the Meeting, it was agreed to substitute "fourteen" for "seven" in line 6.

Mr. G. E. NIELD [F.], speaking on the next clause of the same By-law, which provides for a quorum of not less than twelve Members of Council at Council elections to the Fellowship, objected that the quorum was too small considering that the Council numbered forty members altogether.

THE CHAIRMAN: Hitherto we have had a quorum of only

five. As the Council, however, is bigger we propose to increase the proportion and make it twelve.

Mr. NIELD: These elections would happen very rarely, and one would expect that the full Council would attend.

THE CHAIRMAN: We cannot compel the attendance of the whole Council. The election would be on the agenda, and if members of the Council stayed away it might be taken for granted that they had no objection to the candidate.

Mr. L. JACOB [A.]: Is it quite clear that all those present must vote? Assuming for instance that there were twelve present, that ten voted unanimously, and that two did not vote at all, would the candidate be considered to have received the unanimous vote of those present and voting?

THE CHAIRMAN: Undoubtedly.

Mr. JACOB: Is it not the intention of the By-law that the candidate should have the unanimous vote of not less than twelve?

THE CHAIRMAN: There must be twelve present, and the voting must be unanimous. If two members voted against the candidate he would be rejected, but if they did not vote and the others did he would be elected.

Mr. G. A. T. MIDDLETON [A.]: If that is the meaning, he could be elected if only one voted for him. The words "being present" might as well be omitted.

Mr. MATT. GARRETT: If any single individual on the Council objects to the candidate and will take the trouble to attend, that will bar his election entirely. Surely, that is sufficient. Members of the Council must more or less represent the General Body, and if there is an objectionable candidate proposed we should be able to find a member of the Council to attend and vote against him, and that would settle the matter.

THE CHAIRMAN: The General Meeting at which these proposals were first discussed settled that we should elect by a three-fourths majority of the Council. This therefore is a concession, as we want to make the voting unanimous.

Mr. FRANK LISHMAN [A.]: As I understand, twelve members of the Council are obliged to be present, and yet eleven of them may abstain from voting, and as long as there is no actual opposition to a candidate he would be declared duly elected. I think it should be clearly laid down that the voting must be by a definite number of members of Council.

THE CHAIRMAN: If a candidate's name is put up at a Meeting of Council with twelve members present and only one member holds his hand up, you may rest assured that he is representing the whole twelve if the others do not protest.

Mr. L. JACOB [A.] suggested the insertion of the words "and voting" after "not less than twelve being present." The candidate, he urged, under these exceptional conditions of election ought to receive the unanimous support of twelve members of the Council.

Mr. LEONARD STOKES: It appears to be the wish of the Meeting that they should vote, and probably they would vote. I think there can be no objection to saying that they must vote.

Mr. NIELD [F.]: I propose, then, the insertion of the words "and voting" after "not less than twelve being present."

The proposition having been seconded, was put to the Meeting, and the Clause agreed to as amended.

Nos. 13, 14, 15, and 16 were agreed to without discussion.

No. 17 being put, Mr. SIXON SMITH called attention to a discrepancy between this By-law and the following one. No. 17 (d) provided for a Licentiate paying an annual contribution of one guinea, but no mention was made of an entrance fee. No. 18 provided that "Every subscribing member and Licentiate shall pay his entrance fee or contribution and first annual subscription." He suggested the opening words of No. 18 should read, "Every subscribing member shall pay his entrance fee."

Mr. MIDDLETON: Is there any reason why a Licentiate should not pay an entrance fee?

THE CHAIRMAN: That has been very carefully thought out. A Licentiate is a non-corporate member, and has no right in the property of the Institute. If he paid an entrance fee, which is funded property, he might by law acquire an interest; therefore it is undesirable that he should pay an entrance fee. We give him for the annual contribution certain facilities, and it is better that they should remain as they are.

Mr. EDWARD WYLLIAMS [F.]: Once this new class of membership is created and the circumstances under which it is created are forgotten, Licentiates will rank, for aught outsiders know, with the other members of the Institute. It is absurd that Licentiates should be asked to contribute one guinea only, and for that small contribution should have practical membership of the Institute.

Mr. W. R. DAVIDGE [A.]: It seems a pity that we should throw away what ought to be a source of considerable income to the Institute. We at present draw £1,700 a year in fees from the juniors entering for the Institute Examinations at a time when they cannot afford to pay fees. It is not fair to these juniors that others should come in and pay no entrance fee at all. There is no reason why a Licentiate should not pay on election a first contribution of three guineas, and in subsequent years an annual contribution of one guinea.

THE CHAIRMAN: The juniors you refer to are not members. They pay fees for the examinations, and when the Licentiates come up for examinations they will have to pay fees also.

Mr. MORGAN [A.]: suggested that as a Licentiate is between an Associate and a Fellow, he should pay an annual subscription of three guineas.

Mr. DAVIDGE: Is there any objection to his annual contribution being larger than that of Associates?

Mr. C. H. BROMIE [F.]: The last speaker is talking as if the Licentiates were a continuing body, but they are not. The Associates and Fellows go on for ever, but the Licentiates will soon come to an end.

THE CHAIRMAN: The Licentiates can only come in within twelve months from the passing of these By-laws.

Mr. H. SHIPLEY: The Licentiates will be able to enter the Institute as corporate members, as Fellows.

THE CHAIRMAN: They will be able to enter for the examination to become Fellows, and in that case will have to pay the fees of that examination. It must not be forgotten that we are dealing with Licentiates—not with potential Fellows.

Mr. DAVIDGE: We are hoping to raise money for new premises shortly, and here is an opportunity to raise from perhaps 5,000 Licentiates some thousands of pounds.

THE CHAIRMAN: This has been most carefully thought out and is strictly in accordance with what the Institute agreed to at the meeting two years ago. If we do such a thing as this we shall stop Licentiates from coming in, and what we want is to get them in. I hope the Meeting will pass this as drawn.

No. 17 was then put as proposed in the draft and carried.

Mr. SAXON SNELL, speaking on No. 18, suggested that the sense of the clause might be more accurately expressed by omitting the words "and Licentiate" in line 1, and inserting after "subscription," in line 2, the words "and every Licentiate his annual subscription."

Mr. BROMIE suggested that the point would be met by inserting in brackets the words "if any" after "entrance fee."

THE CHAIRMAN: The clause will have to be redrafted, because the expression "the first annual subscription" is not strictly correct for Licentiates; it is the "contribution" of the Licentiate. We quite appreciate the point, and will correct the wording.

Mr. MIDDLETON added the further suggestion that, for the convenience of members abroad as regards payment of

subscriptions, words to the following effect might be inserted in the By-law: "To be paid to the Secretary of the Institute or to the Honorary Secretary for any Possession or Dependency of the British Crown, as the case may be."

THE CHAIRMAN thought it inadvisable to make a person at the Antipodes the recipient of moneys of the Institute, and pointed out that indulgence is always granted to those resident at a distance.

Nos. 19, 20, 21, 22, and 23 were put to the Meeting and carried unanimously.

Mr. SAXON SNELL, on Clause 24, referring to the words "Any member or Licentiate contravening the Declaration A, B, C, or D . . . shall be liable to reprimand, suspension, or expulsion," said that that ought to be taken after reading what the Declarations were. The Declarations he thought were far too strong.

THE CHAIRMAN: It would be more convenient to take that point on the Declarations.

Mr. SAXON SNELL: I think these are very strong remedies for such conduct.

Mr. F. R. FARROW [F.]: May we have an explanation of what is meant by "a published resolution of the Council"? Does it refer to published resolutions in the JOURNAL or the KALENDAR as to advertising, for instance? If so, the proposal is absurd. On page 10 of the KALENDAR there are a series of published resolutions of the Council, so that if Sir Aston Webb, for instance, signed his drawings "Aston Webb, R.A.," he might be expelled or reprimanded.

Mr. HARE: The By-law only says "shall be liable."

THE CHAIRMAN: In view of this By-law those resolutions certainly ought to be reconsidered. If it is the pleasure of the Meeting the attention of the Council shall be drawn to the resolution relating to professional advertising, so that the absurdity pointed out should not occur.

A MEMBER: Will this matter come before us at another meeting? It is possible that a loophole might be opened in another direction.

THE CHAIRMAN: The Secretary will make a note of that, and we promise to let you know what the Council propose to do in the matter.

Mr. H. A. SACHSELL [F.]: That raises another question. The Council may pass a resolution which may not be for the benefit of the profession. The General Body, it is true, may rectify it at the next election, but meanwhile it would be binding on all the members.

Mr. SAXON SNELL: We have always the power to alter this By-law.

THE CHAIRMAN: Yes, by consent of the Privy Council. I should perhaps tell you what was in the minds of those who drafted this By-law. If the Council decide that the conditions of a competition are so unjust to architects that the competition ought to be barred, and they publish a resolution barring the competition, it is expected that members should uphold their action, and the words of the By-law, "or who shall refuse or neglect to be bound by a published resolution of the Council," have reference to such a case. Members will agree that that is in the interests of all. Recently a member entered for a competition which the Council had barred. We think he acted disloyally in doing so, and this By-law was introduced in order to protect members who are loyally supporting the Council's resolution passed in such circumstances.

Mr. H. HARDWICK LANGSTON: Will this By-law include a resolution of the Council to the effect that an architect erecting a building shall not place his name in front of the building while it is in progress?

THE CHAIRMAN: The attention of the Council shall be drawn to this matter, and whatever they decide shall be laid before members.

Mr. MAX CLARKE [F.]: Would not the words "with regard to competitions" after "published resolution" make the matter quite clear?

THE CHAIRMAN: That would be placing too great a limita-

tion upon the Council's discretion. The Council are jealous for the status and dignity of the profession, and they are not likely to publish resolutions unless they are strongly in the interests of members.

MR. MAX CLARKE: The Practice Committee, by the instructions of the Council, are at the present time considering the advertisement question. They are making enquiry as to the practice in this matter in other parts of the world, and it seems to me that the Council should withdraw their resolution pending the issue of this enquiry.

THE CHAIRMAN: When the Committee's report comes up to the Council, they will of course consider it with reference to the resolutions published on page 10 of the KALENDAR.

MR. SAXON SNELL: Shall we have an opportunity later of discussing this By-law, or are the Council simply to let us know what they have done without giving us an opportunity of considering it?

THE CHAIRMAN: If you pass the By-law to-night you will not have a further opportunity of discussing the By-law, but you would the resolution.

MR. SAXON SNELL: I would suggest that the consideration of the matter be deferred in connection with the Declarations.

THE CHAIRMAN: We must come to that presently.

MR. SAXON SNELL: I think, unless we are prepared to discuss them thoroughly now, the matter ought to be adjourned.

MR. C. T. MILES [F.]: I should like to know, Mr. Chairman, whether your remarks about competitions come under the head of By-law 24. You referred just now, Sir, to a member who took part in a competition against the wishes of his brother architects. I am that man, but I think when the Council hear the facts they will not judge so hardly as the Chairman has just put it to the Meeting.

THE CHAIRMAN: We cannot go into that question while discussing By-laws.

MR. MILES: But we are precluded altogether from opening that question if you rule that under By-law 24 the question of competitions is settled.

THE CHAIRMAN: We are going on with that in the "Declarations."

MR. J. NIXON HORSHIELD [A.]: As to competitions and advertising, it is merely to give the Council the discretionary powers which are so essential to them. There is no use in the Council passing resolutions if they have not the power to back them up by a reprimand.

A MEMBER: If such an important matter is to be dealt with by the Council, would it not strengthen their hands to have the support of members by taking a poll of the General Body?

THE CHAIRMAN: I do not follow you. The point is that members must be bound in effect by the published resolutions of the Council. That is a general principle which, I submit, is in the interests of the body generally.

A MEMBER: But before the Council take such a step would they not bring the matter before the General Body?

THE CHAIRMAN: Of course not; it would not then be a resolution of the Council.

MR. JEMMETT [F.]: Would not that give the resolution the principal effect of a By-law?

THE CHAIRMAN: Yes.

MR. JEMMETT: Would it not be well for all these resolutions to be discussed or brought before us? If not I fear we should have to overhaul them. The Council in the past have published resolutions which are now obsolete; could you not undertake to overhaul the whole of them before this By-law comes into effect?

THE CHAIRMAN: Yes, we will undertake to do so.

A MEMBER: And submit them to a General Meeting?

THE CHAIRMAN: It depends upon whether it is in the discretion of the Council or not. We will undertake that the existing resolutions shall be carefully considered to see that they are in no sense contrary to the spirit of this By-law.

MR. JEMMETT: I think that will satisfy members.

No. 24 was then put and agreed to.

MR. MATT. GARBUTT, speaking on No. 25: I spoke on a previous clause with regard to the adoption being by the unanimous vote of those voting. I think it would be reasonable and desirable to have a unanimous vote, or unanimity among those voting, in this case as in the other, and I move that that alteration be made.

THE CHAIRMAN: That would be very dangerous indeed. If you are going to say that no man shall ever be reprimanded for a serious breach unless everybody on the Council is unanimous, you will never get anybody reprimanded.

MR. GARBUTT: It is not the question of reprimand; it is that he may be suspended or expelled. A member may be reprimanded by a small majority apparently, and to this there is no objection; but suspension or expulsion is a very serious matter.

THE CHAIRMAN: It must be decided by a majority of at least two-thirds of those present, and in any case by the vote of at least twelve. That should be quite disciplinary enough. It is no pleasure to the Council to expel or suspend a man; and if two-thirds of a meeting of the Council, or at least twelve members, consider that he has been guilty of something contrary to the interests of the Institute, surely it is quite right that they should deal with it.

MR. H. SHEPHERD [A.]: There is one important point with regard to this matter which seems to have been quite overlooked. The clause says: "Should the Council find *prima facie* grounds for further proceedings the Secretary shall send in a registered letter to the Member or Licentiate against whom the charge is preferred a copy of the same." As I understand it, if it is alleged that a man has been guilty of unprofessional conduct, and the matter is brought to the attention of the Council in a confidential letter, the Council are binding themselves under this By-law to send a copy of that letter to the person who is charged with the offence. That, I think, might give rise to a great deal of trouble, and the member who wrote the letter might find himself prosecuted for libel. I should like, as an Associate, to point out to Fellows that this clause requires very careful consideration.

THE CHAIRMAN: It does not say that a copy of the letter shall be sent, but a copy of the charge. The words are "against whom the charge is preferred a copy of the same"—that is, the charge. We are not to condemn the man unless he has an opportunity of answering the charge against him.

MR. F. R. FARROW [F.]: The words of the By-law are, "Any charge must be in writing duly signed" and . . . "a copy of the same"—that is, that duly signed charge—must be sent to the member against whom the charge is preferred.

THE CHAIRMAN: We might alter the words "a copy of the same" to "a statement of the charge."

MR. JEMMETT: The clause says "In any case of suspension or expulsion the fact shall be forthwith recorded in the JOURNAL of Proceedings, and, if the Council so decide, published in such newspapers as the Council may determine." In the event, however, of the Council taking someone back again, the By-law says that the Council shall "publish such decision in the JOURNAL and the newspapers as before provided if they so decide." That means in the first case that the expulsion may be published in every paper in Europe, and when the man is reinstated the fact need only be published in the JOURNAL.

THE CHAIRMAN: On the contrary, it is in "the newspapers as before provided."

MR. JEMMETT: "If you so decide" the draft says; but suppose you do not? I think it would be fairer to publish the reinstatement in the same papers as the expulsion was published in.

THE CHAIRMAN: Cutting out the words "if they so decide"? I agree that these last four words should be omitted.

Mr. JEMMETT: Would that cover the case of a man in the provinces who is expelled and the fact is published in the daily London Press and there only, but his local paper copies it and makes a great fuss of it in his local town. Then when you reinstate him, you do not publish it in his local paper, but only in the London papers, and the local paper does not take the trouble to copy it. I suggest that you should be bound to publish the reinstatement in all the papers in which you published the expulsion and in such others as you may decide.

THE CHAIRMAN: I do not think that is sound. You could specify its being on certain papers, but it might be copied in Australia or India, or any other distant country.

Mr. JEMMETT: Yes, but if the member points out the harm that has been done him, surely you might have the power to publish it in his local paper if you so decide.

Mr. K. GAMMELL: I think he would see to it that it was published in the local paper.

THE CHAIRMAN: It would be throwing on the Institute an obligation which would be most difficult to fulfil. I think your first point is a sound one, to omit "if they so decide" but I do not think the other point is.

Mr. EDWARD GREENOP [A.]: Have the Institute solicitors been consulted about this clause, as to its being safe for us to publish the expulsion in the new-papers?

THE CHAIRMAN: As a matter of fact the Institute solicitors have been consulted, and they tell us that it is a very dangerous thing to do. That is why we put in the words "if the Council so decide." There might be cases of offence so gross that we should publish it whether libel actions against us were likely to ensue or not; but there might be other cases where it would be very imprudent to do it, and it is for the Council to decide whether or not it shall be published in the public Press.

No. 25 as amended was then put and agreed to.

No. 26 was passed without discussion.

Mr. G. A. T. MIDDLETON [A.], on Clause 27 being put, suggested two changes—first, that the Council should consist of forty-two members, so as to permit of there being six Associate Members on the Council instead of four; secondly, that the words "The two Past Presidents" should read "The two immediate Past Presidents," so as to avoid any contest as to which of the Past Presidents should be elected.

THE CHAIRMAN: We will take the last point first. The Council are of opinion that it is not wise to specify which of the Past Presidents. It may be that one who was not an immediate Past President might be so useful that it would be desirable he should be one of the two, and therefore it is left for the Council to select which of the Past Presidents they consider the most valuable for the Institute. Supposing, for instance, we have a particular matter coming on in Parliament, it might be thought desirable for that year to have on the Council a Past President who had particular influence on that subject, and therefore they would select him and one of the others. It would be wise to leave it in their discretion, because circumstances vary from year to year.

Mr. C. H. BRODIE [F.]: There is another reason why the proposal is sound. Supposing some very important matter had been settled by the Institute during the presidency of Mr. A. Four or five years afterwards that matter might come up again and it would be of the utmost importance to the Institute that Mr. A. should then be on the Council to help them, and to help the Institute, in the consideration of that matter.

Mr. PERCY B. TUBBS [F.]: I should like to move both of the proposals put forward by Mr. Middleton—first, that the Council should consist of forty-two members; and, secondly, that the Past Presidents should be the immediate Past Presidents.

THE CHAIRMAN: I hope the Meeting will not take that line. Some of the Past Presidents absolutely refuse to serve

in any event, so that by passing such a resolution it would mean that you would only get one or perhaps neither.

Mr. HENRY T. HAIR [F.]: I should say the intention of the Council is that it should be the two immediate Past Presidents, and in most cases it would be. It is only to give the power to do something else.

Mr. GEORGE HUBBARD [S.A.]: Is it quite clear that these two Past Presidents are not to be elected as other members are?

THE CHAIRMAN: They are to be chosen by the Council but all be elected.

Mr. A. R. JEWELL: I should like to point out that the Council would not have the trouble you anticipate about the Presidents refusing to be nominated because it would be an understood thing when a man was appointed President that it would entail serving on the Council afterwards for two years.

THE CHAIRMAN: Some of them, I am certain, would decline.

Mr. JEMMETT: Then we must suffer their loss. We can get along very well without the Past Presidents; we have done so up till now. The tendency of the Institute and of all progressive bodies should be to get in the younger men rather than bring back the older ones unless there is some special reason to the contrary. I do not think sufficient reason has been given for retaining the Past Presidents, so that on the general principle I shall be pleased to support Mr. Tubbs's motion.

Mr. H. HERVING STURHAM [F.]: What is Mr. Middleton's reason for wanting the two last Past Presidents? Why should they be chosen more than any others?

Mr. C. E. HUTCHINSON [A.]: Are these two Past Presidents simply to be elected by the Council? I see no indication in the By-laws as to how they are to be elected.

THE CHAIRMAN: We come to the mode of election in By-law 32. We are dealing now with the constitution of the Council.

Mr. HUBBARD: Would it not be better to put the motions separately? The one motion is that the Council should consist of forty-two.

Mr. K. GAMMELL [A.]: I suggest that, as you are increasing the number of Fellows who are to be members of the Council, you should increase also the Associate Members.

THE CHAIRMAN: We are not increasing the number of Fellows.

Mr. GAMMELL: It used to be thirty-eight members of the Council, and it is now to be forty.

THE CHAIRMAN: The added members are two Past Presidents.

Mr. GAMMELL: They are both Fellows and as there is an increase in the older members of the Council there should be a proportionate increase in the Associates.

THE CHAIRMAN: For the moment let us discuss the question of the two Past Presidents.

Mr. MIDDLETON: I was asked my reason for selecting the two immediate Past Presidents. I agree that it is most advisable that Presidents should not immediately retire from the Council; they have possibly been of extreme use and ought to be retained. But, on the other hand, the selection of the two immediate Past Presidents instead of any others might prevent any ill-feeling at election time. You explain that they are not to be elected by the General Body, but as I read the By-laws I understood they were to be so elected, and a contest of this nature between Past Presidents seems most undesirable.

THE CHAIRMAN: That is why we did not propose it. If the Council were to invite two Past Presidents to assist at their deliberations, and these Past Presidents were to be put into competition with others, they would certainly decline to stand.

Mr. JOHN SEATER: It must be remembered that the President of the Institute, after his two years of office, during which he has devoted a very great deal of his time

to the Institute may naturally not care to join the Council for the immediately succeeding years, but would be glad of a year or two's rest. After a time, however, we might be anxious to have him on the Council again, in matters in which he had special knowledge were coming to the fore. For that reason we think it undesirable to have the two immediate Past Presidents.

MR. GEORGE HUBBARD: It might not, however, always be in the best interests of the Institute to have the same Past President re-nominated every year. I think there is some danger of that happening and now is the time to avoid it, if possible. The question of two Past Presidents coming on to the Council has only come up quite recently, and if it be decided to have them, I personally am in favour of the two immediate Past Presidents.

After some further discussion the amendment was put to the vote and declared lost, nine being in favour and eighteen against. The original proposition was then put and carried.

MR. SAXON SNELL proposed that the Council should consist of forty-four members, of whom four should be provided under a clause as follows: "One member being a Fellow of each Standing Committee elected by and at the first meeting of such Committee."

MR. MIDDLETON: Would you not take Mr. Tubbs's amendment first—that the Council should consist of forty-two members? An amendment should be either passed or rejected before a further amendment is taken.

THE CHAIRMAN: We should be glad to hear what reasons there are for forty-two instead of forty.

MR. K. GAMMELL: May I suggest that any increase should include Associate Members? The tendency seems to be to include more Fellows and no Associates at all. I think it would be doing a very graceful act to slightly increase the number of Associates on the Council.

MR. HUBBARD: I have felt that we have treated the Associates with rather scant courtesy. In a large Council of forty members to have only four Associates seems as if they had been a little forgotten. I think the Fellows voting to-night might be generous to the extent of putting on two more Associates.

THE CHAIRMAN: May I point out that it is not a case of four Associates *versus* forty? There are only eighteen ordinary Members of Council who are Fellows of the Institute; the others are all *ex officio*. It is therefore eighteen to four. This question was discussed with the greatest fullness and with every desire to meet this view both by the By-laws Committee and by the Council, and it was felt that on the whole a working Council of eighteen Fellows and four Associates formed an excellent working Council, and it was desirable not to change it. It is a very good proportion, and, after all, I do not believe that the younger members desire the government of the Institute to be in junior hands. It is contrary to all practice.

MR. HUBBARD: Is it really the fact that it is eighteen to four? Are not the twenty-two *ex-officio* members Fellows?

THE CHAIRMAN: They are Fellows, but they represent different interests.

MR. HUBBARD: Nevertheless my statement is accurate, that the Council is composed of forty, of whom four only are Associates. I think that proportion is a very small one.

MR. GAMMELL: I believe a great deal of the progress of the Institute is due to the younger men. What I say is not intended antagonistically, but I suggest that there are very many more than four Associates who are worthy to sit on the Council of the Institute.

THE CHAIRMAN: Nobody doubts that every Associate is worthy of a seat on the Council, but that is a different point entirely.

MR. J. NIXON HORSFIELD: May I suggest, Sir, that when you said the Institute did not want to be governed by juniors you were speaking against the motion that there should be more Associates on the Council? Nevertheless,

the Associates do want to have a reasonable proportion. An extra two on the Council would be a very small concession at this stage.

The Chairman putting the question to the vote—viz. that the Council should include six Associate-Members instead of four—the Meeting decided in favour by sixteen votes to six, and the amendment was declared carried.

THE CHAIRMAN: That raises the Council to forty-two members.

MR. SAXON SNELL moved that the Council shall consist of forty-six members, the additional four to be provided in a clause as follows: "One member who shall be a Fellow of each Standing Committee elected by and at the first meeting of such committee." The Committees, Mr. Snell explained, have frequently before them questions of importance which are discussed at great length and with great trouble. Members were elected on these Committees *ad hoc* because they were supposed to be particularly qualified to deal with the questions coming before them. After much time and trouble had been spent in considering certain matters they must be sent up to the Council before anything can be done, and it has happened over and over again that those questions have simply died out and nothing has been done. The reason is that Members of the Council do not appreciate what has moved the Committee to make their recommendations. It would be a great advantage, therefore, if a member of the Committee could be deputed to attend the Council and explain their views. He could see no way of doing this except by making a member of the Committee a Member of Council. If any other way could be suggested he should be quite willing to fall in with it.

THE CHAIRMAN: May I suggest that if on the Practice Committee you have Members of Council it would be prudent, and it was always the custom years ago, to elect either as your Chairman or Vice-Chairman a Member of Council so that he might fully represent the Committee's views before the Council?

MR. BRODIE: That is exactly what he cannot do as a rule; he misrepresents the views of the Committee.

THE CHAIRMAN: Is it the fact that when you elect a Member of Council as your Chairman or Vice-Chairman he misrepresents your views?

MR. BRODIE: I say it is most decidedly.

MR. MATT. GARBUTT: Very often among the members of Standing Committees there is no Member of Council, so that the Committee could not select a member of Council if they wanted to. That being so, I second Mr. Saxon Snell's motion.

THE CHAIRMAN: I am afraid you cannot do this; under the Charter the Members of Council must be elected at a General Meeting.

MR. GARBUTT: Including the two Past Presidents?

MR. LEONARD STOKES: The two Past Presidents are elected in the same way as the representative of the Architectural Association is elected; they all go upon the voting list.

THE CHAIRMAN: Everyone must go on the voting list, but you cannot elect Members of Council at the Standing Committees.

MR. GARBUTT: I suggest it would be no more impossible than to elect under sub-section (e), "One Fellow or Associate of the Royal Institute as representative of the Architectural Association (London)."

THE CHAIRMAN: No; because you do not elect your Practice Committee until the same day as you elect your Council; therefore you cannot in an anticipatory way elect the Council, whereas the Architectural Association itself knows who is to be its representative.

MR. GARBUTT: This is an unfortunate difficulty which would be overcome if the Institute wished to overcome it.

MR. SAXON SNELL: I shall raise the question another day. No. 27 as amended was then put as a whole and agreed to.

The Meeting adjourned at 10 o'clock.

Adjourned Special General Meeting, 14th June.

Mr JAMES S. GIBSON in the Chair.

The Minutes of the previous Meeting having been confirmed.

THE CHAIRMAN put to the Meeting By-law No. 28.

Mr. A. R. JEMMETT *[F.]* said he wished to propose that neither of the two Past Presidents added to the Council under Clause (5) of By-law 27 should be eligible to serve on the Council for more than three successive years. Would it be in order to move the addition of such a provision to By-law 28?

THE CHAIRMAN said that the By-law before the Meeting was intended to deal exclusively with the term of office of the President, but that Mr. Jemmett's proposition might be dealt with in a fresh By-law.

Mr. C. H. BRODIE *[F.]*: I have given notice of an addition I propose to move to No. 31, limiting the period of service of ordinary members of Council, and my proposition would affect Past Presidents equally with the other members of the Council.

Mr. JEMMETT: Have I your assurance, Mr. Chairman, that my motion regarding the two Past Presidents may be dealt with in connection with the duration of service of the ordinary members of Council?

THE CHAIRMAN: Yes.

By-laws 28, 29, and 30 were put and carried respectively without further discussion.

Mr. G. A. T. MIDDLETON *[A.]* suggested that this was the right place for the insertion of a new clause dealing with the period of office of ordinary members of Council. The clause he suggested might read as follows: "No person shall be eligible to serve on the Council for more than three years in succession, unless he be elected as President, Vice-President, or Honorary Secretary."

THE CHAIRMAN suggested that this might be moved as a fresh clause preceding No. 31.

Mr. HUBBARD: In order that Mr. Middleton's suggestion may be discussed I beg to move it formally as a proposition.

Mr. BRODIE: That, I suggest, should follow No. 31: I have already given notice of a motion that the following provision be added to No. 31, "but no member of Council who has filled the office for six successive years shall be eligible for re-election as a member of Council until the expiration of two years from the termination of his tenure of office."

Mr. MIDDLETON: That comes to much the same thing as my three years with one year's interval.

Mr. MAX CLARKE *[F.]*: And I have a resolution to propose that no ordinary member of Council shall serve for more than two consecutive years; and that he shall not be eligible to serve again until after the lapse of a further two years. This would come in better as an addendum to No. 31.

Mr. MIDDLETON agreed that his suggestion as proposed by Mr. Hubbard might come not as a fresh clause, but as an addendum to No. 31.

Mr. BRODIE, rising at the invitation of the Chairman to speak on his motion, said that his proposal was no new idea. Eleven years ago, in the *Journal* for the 7th May 1898, there appeared a letter from himself advocating something of the same kind. He stated in that letter that one member of the Council had been on for fourteen consecutive sessions, another for thirteen, two for twelve, two for eleven, two for ten, two for nine, two for eight, and one for seven, all these being consecutive sessions. One member nominated in 1898 for a seat on the Council had been on it as long ago as 1881; and out of the list he had just read three members were still on the Council. That meant that of those gentlemen one of them had already been on the Council twenty-three years, another had been on nineteen years, and another had been on eighteen years. One effect of his letter was almost immediate. Mr. Thomas Blashill, whom he met a few days afterwards, admitted that he was

right. "Some of us," he said, "stay too long on the Council; I am going off," and he went off. He (the speaker) did not believe that it was to the benefit of the Institute that any man should be on the Council over twenty years. In his opinion the highest standard of good work in the architectural profession had been reached in the Architectural Association of London. And the reason was obvious: it was because the Association had—and always had had, he believed—a rule that only a certain number of members of the Council might be re-elected each year and a certain number must go off after a definite period—viz. three years. He admitted, however, that a period of three years on the Council of the Institute was not sufficient. A member could only pick up the threads of the work on the Council during a period of three years. Therefore he suggested six years, following the period laid down for the Hon. Secretaryship in the preceding clause, but he did not wish to tie them down to six years; they might make it seven or eight if they liked. Again, if a man had been a member of the Council for six years and had proved himself to be particularly useful on the Council, he could then be put on as a Vice-President for four years, which would make a total of ten years' service. That, he thought, ought to be the limit. This unfortunately was not a point upon which the Associates could vote; he had always wished that it were, because he felt, and felt very strongly, that the position to which the Institute had recently attained could be traced directly from the time when the Associates were given the right to vote upon other questions. He was inclined to go further and say, not only that it could be traced to the time when Associates were given the vote, but that it was directly traceable to the fact that they had a vote. It had gradually come to be considered that when a man got on to the Council he had secured a life appointment. That was a pity, for the members of Council did very arduous work—all honour to them for it!—and in their own interests it was essential that some limit should be set to the period of such work. He made the statement about it being considered a life appointment with some regret, but with some reason, because one of the saddest things he had ever seen in that room was when a very old and very much respected member of the Council, who by the accident of the voting had not been re-elected, stood up and tried to make some remarks and absolutely broke down. That was a regrettable sight, because why should a man who had done such magnificent work for the Institute regret so keenly that another should take his place? If the electorate did not choose to re-elect him, that was their business, and he ought to have been glad to seek a dignified retirement. Members who had served on the Council and were nominated to serve again seemed to look upon it as a slur if they were not re-elected. He would therefore do away with the reason for such a feeling and say that when a man had been so many years on the Council he should retire automatically. The speaker, in conclusion, moved his resolution as above.

Mr. MARRICE B. ADAMS *[F.]* seconded. Any institution, he said, to be successful must work on the broadest possible basis. By ensuring fresh men on the Council from time to time they did not necessarily lose the experience and the advantage of the advice of those who had served on the Council but who had retired from it; their interest surely was not limited to the fact that they happened to hold office; they were always available, and prepared to come forward, as they had done on many occasions, to give the Institute the benefit of their advice and experience. He ventured to suggest also that the more men were brought in and passed through the Council the wider would that essential basis of working be, and the larger consequently would be the interest members would take in it. Many men in the profession at the present moment took exceedingly little interest in the Institute, and this was much to the Institute's detriment. Mr. Brodie's proposal if passed would afford

an opportunity to many others of coming into the Council and bringing fresh ideas into it. In saying this he did not wish to reflect upon those who had been so long on the Council, but for the good of the Institute they ought to make room for others and so induce them to take an interest in the Institute by their practical co-operation. What they were now advocating appeared to be brought within reasonable practical politics by the Address of the President at the opening of the present Session, when he stated that a scheme was on foot to quicken the rotation of members on the Council. Therefore it could come as no surprise to those members of the Council who possibly did not agree with the proposal now before the Meeting. He himself was prepared to suggest three years as the term of service; but he quite agreed that a new councillor required some little time to get into the work, and that a longer term might be desirable. He thought also that the resolution ought to be retrospective, and that those who had been on the Council for so many years should not take a new lease of life. If they had been on twenty years and were now to have another six years, that would be twenty-six years. The By-law ought to be retrospective in its working, and with that idea he would second the amendment.

MR. G. A. T. MIDDLETON [A.]: With regard to its being retrospective, the By-law would come into force directly it is approved, and when the next election comes on those who have been more than six years on the Council would have to retire in favour of new men.

MR. MAX CLARKE [F.] said he quite agreed with Mr. Brodie's most admirable remarks. Speaking on behalf of the younger members of the profession, he considered it quite legitimate that they should strive to get into the position of assisting in the management of the greatest architectural body in the British Empire. If they had not some idea of that kind, he took it that they were either too busy making money or were too much satisfied with their own position to trouble about the Institute at all. In his opinion this was not a personal matter. The personal element must be forgotten in a question of this kind. They knew perfectly well that there were men on the Council who could not be bettered; but on the other hand there were just as good fish in the sea as ever came out of it, and it was these fish they wanted to find. If he, or any other member, or any member of the Council, died to-morrow, it would not make the smallest difference in the world to the Institute as an Institute. Others would fill their places and things would go on precisely the same as before. No one could take exception to the resolution as not being perfectly reasonable, because the same system was in operation in other similar bodies. Therein, he supposed, was about the most conservative body in existence, but this was only just a slight change, and it would have most beneficial results.

MR. H. A. SATCHEL [F.] said that, while entirely supporting Mr. Brodie's remarks, he felt that the personal element unfortunately must always come into a matter of this kind. A seat on the Council had by some of the older members come to be considered probably a matter largely of prescriptive right, and it might be graceful to those members if the movers of the resolution would accept a modification that the rule should not apply to the present Council. That would remove any possibility of objection. Large changes like that proposed might be very desirable, but there was a good old proverb which said, "If you want to make haste, go slowly."

THE CHAIRMAN: I do not know whether it is Mr. Brodie's intention, but if the amendment is passed in the form in which it is proposed it would naturally be retrospective, and it would wipe out a large number of the present Council.

MR. BRODIE: That is the idea.

THE CHAIRMAN: Might it not be made operative from the time when the By-law is passed, so that six years from that time the men might drop automatically off the Council?

MR. MIDDLETON: May I point out that, if you did that, a great number would have to go out on the same occasion six years hence, that is, all who had not been replaced by other names. They might form more than a fair proportion. It might meet the case to have some arrangement by which a certain proportion should go out by ballot on the first one or two occasions.

MR. SATCHEL: I should be quite prepared to propose as an amendment that it should not be retrospective.

MR. HENRY T. HARE [F.] said he must express his dissent from what Mr. Brodie and others had said, that the members of the Council considered they had a vested interest. It was gratifying to a man who was elected year after year to feel that he was held in high estimation by his colleagues, but there was no sense of a vested interest of any kind whatever. When the Committee responsible for these By-laws began their work they had it in their mind, he believed, to make a regulation limiting the term of office of members of the Council. They were unanimous in their desire to formulate workable regulations, and the matter was discussed, he believed, more than any other part of the By-laws. Numerous schemes were drafted, but in every one some practical difficulty was discovered. If it began from a certain date, as had been proposed, it meant that the whole or the Council would retire at once at the end of the three years or six years, whichever it might be; hence there would be an entirely new Council, and continuity in the work would be lost. If one-third went off every year and were eligible for re-election after an interval of one year there was nothing to prevent that third from coming back at the expiration of the year, and they would get the same sort of cycle going on again—they would only have enlarged it by half a dozen men. One third of the eighteen members could come back if the Council liked to renominate them and the members liked to re-elect them.

MR. BRODIE: But that has not been proposed.

MR. HARE: I was only giving that as one practical way of carrying out your suggestion. Continuing, Mr. Hare said that the present arrangement seemed to him the most democratic they could possibly have: they could have an absolutely new Council every year if they wished. It, however, they passed a By-law of this kind they would be merely imposing a disability on the electorate. If there were one or several members whom the electorate thought had been long enough on the Council and ought not to be re-elected, they voted against those members, and then the By-law did not come into operation. When, however, they thought a man who was on should stop there and they wanted to keep him on, they would not be able to have him because the By-law would be against it. Another point: it had been instanced that several members had been on the Council a great number of years. He could assure them, however, that those members who had sat on the Council longest were held to be the most useful and the most indispensable members on the Council.

MR. BRODIE: asked why it should be laid down in the By-laws that the President should not serve more than two years, nor the Honorary Secretary more than six years?

MR. HARE said it was not necessary for him to enter into that; that was a different question. Another point, he believed, which weighed with the By-laws Committee was that as a result of a Council which should change entirely in a few years they would arrive eventually at a body whose *personnel* would be exclusive of the names of well-known men, and that fact might be detrimental to the influence of the Institute outside. They were advised that this actually had happened in the case of other similar bodies which had adopted a regulation of this kind; that it had been very detrimental to them, and that they had very much regretted having taken such a course. Those were mainly the considerations which influenced the Committee in abandoning the idea of making any change. He thought that the six years proposed by Mr. Brodie was open to much

less objection than the three years, because it gave a reasonable time for men to get acquainted with the work of the Institute: but at the same time he thought that any definite limit of that kind was likely to prove detrimental to the influence of the Institute.

Mr. MARCEL B. ARAYS (F.): Supposing—which I think very unlikely—that the Council should be deprived altogether of well-known names, might we not, as independent members, still possess the right to nominate some of those who are now on the Council, or some other eminent architects? There is no reason why those names should not be brought forward in precisely the same manner as at present. The difficulty Mr. Hare points out of our losing men who have been on the Council for some while, unless they were continually to be eligible as they are at present, keeps up this very personal feeling which I want to see avoided. We do not like to vote against such candidates; I myself continue to vote for certain individuals because I know they have been very valuable and that their experience is very desirable: but, at the same time, if this came into working order I should be very glad, because I want to get rid of that personal narrowness of idea. We are dealing with the Institute, not with the particular men who happen to be on the Council. I must say I am not converted by what Mr. Hare has said.

Mr. MIDDLETON suggested that the following might meet the case: "That one-sixth of the ordinary members of the Council shall retire each year and not be eligible for re-election for two years, those retiring to be seniors in service, and in the event of equality of seniority the rotation to be decided by lot."

Mr. BRODIE: It agreed to. I would suggest that the provision should not come into operation until 1911.

Mr. ELWIN T. HALL, *Vice-President*, said he hoped everyone present would dismiss from his mind any idea that members of the Council felt that they had any vested interest whatever in the Council seats. Year by year every member of the Council was put up for election: if he were returned he felt honoured by the confidence reposed in him; if he were not returned he felt he had relief from labour. It must be assumed that the reason members re-elected members of Council was because they thought they were useful to them. As Mr. Hare had told the Meeting, this subject had received the most careful consideration both from the Committee and from the Council with the idea of meeting the suggestion made by the President in his Address. The practical difficulties, however, were very great. For instance, Mr. Middleton suggested that one-sixth of the Council should retire every year. That meant that in six years not a single member of the present Council would be on. Let them think what that meant. They wanted new blood on the Council. But it was said that after one year's relegation the same men would come back. It must be one of two things: either the new blood must come in to stay, or the same men were to go back after a year, when they will have lost touch with the work of the Council. He begged them to try to think that out clearly. Either the men were to go off and new blood was to come in, or else it was a farce to say that any new blood was to come in at all. If they wanted the new blood to come in and stop, it followed that when they wanted the three to go off in a year they meant to say, "We replace that three by new blood which new blood is to stop in." Thus his first proposition was sound, that at the end of six years all the present members of the Council would have gone off, because it would be an insult to the new blood to say, "Come in for a year and then go away when we get the old men back." Another point: If this proposal were passed, that no member was to serve more than six years, they got exactly the same result; all the men now on would in six years be off. Let them look at the Council List, and they would see whether the members were men they would like to have on the Council, or whether in six

years they would like to have an entirely new set. Furthermore, the Council had been distinctly advised by their solicitors that where this scheme had been tried it had prejudiced the institutions—for there were two—very seriously indeed.

Mr. BRODIE: What time do you suggest?

Mr. HALL: If there were to be compulsory retirement at all, it should certainly not be under ten years or twelve years. He was arguing from a strictly business point of view, because after all the first time was a business and if it were not well managed it would suffer. They had the most democratic constitution possible, in having the power to change the Council every year. It was done some ten years ago; nearly every member was turned off.

Mr. BRODIE: Greatly to the disadvantage of the first rate.

Mr. HALL: If the principle is determined here that in the course of a certain number of years the whole Council shall be changed, then the matter would have to be worked out in Committee to see how it could be done.

Mr. ALFRED CLOW (F.) said he hoped the Meeting would very seriously consider Mr. Brodie's proposal before they voted for it. It would be most disastrous, he thought, to the interests of the Institute if at any period a member of the Council should be compulsorily retired from that office. He would give an illustration. At present negotiations were proceeding between the Council of the Institute and the London County Council on the question of the Bill now before Parliament with regard to steel-frame construction, and one of the members of the Council present that evening had taken a most active part in that matter. He thought members would agree that if that gentleman were removed from the Council at the present time nothing could be more to the disadvantage of the Institute. It was in the highest interests of the Institute that at any rate a certain number of gentlemen actively engaged and interested in the work of the Institute should remain on the Council. The Institute was the gainer from having on the Council such men as the late Mr. Blashill. He was just the kind of man who would retire when the slightest intimation was given that his presence was not required. There had been no one more keenly alive to the interests of the Institute than the late Mr. Blashill, and it was most unfortunate that such a man should have had to retire from the Council. He was heartily in sympathy with the suggestion that new blood was required on the Council, but that could be achieved without making the men who were most keenly interested in the Institute go to the rear. It might be easy to arrange, if they wished, that every year so many members should be new to the Council. But they should not force off anybody whom the Institute thought it worth while to retain. They might have a regulation to remove from the Council members who were so busy that they had no time to attend to the duties of the Council, or others who had lost interest in it; those for instance who did not attend the Council meetings might very well retire in favour of members who were more actively in sympathy with the work. If anything were to be done he would suggest that of the eighteen members of Council they might say that at least six should not have served on the Council during the previous year.*

Mr. A. Saxon SMITH (F.) said he thought that the main point had not been touched upon by any of the speakers so far. As Mr. Hare and Mr. Hall pointed out, theirs was the most democratically elected Council they could possibly have, and as such it ought to be perfect—but the difficulty was that the Council themselves nominated a great many of the members. That would be all right so far, but unfortunately a very large number of the electorate knew

* This proposal I find to be almost identical in form with one of the articles of the "District Surveyors' Association," which runs as follows:—"The Committee shall consist of eighteen members, of whom not more than twelve shall have served in

nothing about the members, and thought that anybody the Council recommended was good enough. He should like to suggest that, to meet this demand to have new blood on the Council, the Council be restricted to nominating twelve only; and if the other members of Council were so good it should be quite open for, say, some seven outside members to propose their names. If the Council themselves nominated only twelve, that would go a long way to meet this objection.

Mr. J. DOUGLASS MATHEWS [F.] said he had been about to make the same suggestion. This ought to be carried out by an alteration in the next By-law, that the House List should contain so many fresh names. By that means the General Body would be given the opportunity of proposing any one they pleased, whether he had served twenty years or five years. He thought an arrangement of that nature would quite meet the case. They might put a limit if they wished, that a certain number of members who had served for more than six years should not be nominated.

Mr. W. HENRY WHITE [J.] said he thought Mr. Hall's statement had appealed to a good many of them. At the same time there was a great deal to be said on the other side. He thought Mr. Middleton's suggestion a good one, and in order that it might be discussed he would propose it, viz. "That one-sixth of the members of the Council shall retire each year and not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of equality of seniority the rotation to be settled by lot."

Mr. PERCY B. TUNES [F.] seconded.

Mr. MAIR GIBBERT [F.] said he desired to support Mr. Brodie's amendment. Generally speaking, he was in agreement with Mr. Hall in nearly everything he said, but he certainly did not follow him on one point. Mr. Hall said that when members of the Council who had been on duty for many years found themselves rejected, they did not mind at all; they felt they were to be relieved from labour. Afterwards he said that new men on the Council, if not re-elected, would be insulted. He did not see why the new men should take as an insult that which was no insult to the senior members. There was, he felt, a great difficulty in the minds of many of them in entirely getting rid of the personal element in considering the voting list. They had there the names of Members of Council of long standing for whom they entertained the greatest respect, and they certainly did feel very unwilling to vote against them. The result was that they did not vote against them, and so they got elected again and again. That might be all right from some points of view, but he certainly thought that the change proposed by Mr. Brodie would be very desirable, and an event alluded to that evening showed one probable advantage of agreeing to Mr. Brodie's suggestion. The Council one year did something which a good many members, particularly among the younger men, disapproved of; the result was that an extreme measure was taken and practically all the Council were thrown out—a most regrettable thing, and certainly to the detriment of the Institute. He did not think that sort of thing would occur if there was an automatic arrangement by which new blood regularly found its way on to the Council. As regards what Mr. Hall said, that in six years' time the whole of the present Council would under Mr. Brodie's scheme of necessity be gone, that was a mistake, because although a man who had been on six years would have to retire, if he were a very good man he could be re-elected after an interval of two years. Therefore they might get about two-thirds of the present Council back again at the end of the next six years' period. Those among the younger men who were least worth retaining would doubtless not survive more than a year or two, but the best of the old men would doubtless be put back again,

the same capacity during the previous year." We have found this arrangement to work extremely well.—ARTHUR CROW.

Mr. Crow's contention that members of Council ought to go on serving continuously hardly squared with his tacit consent to the retirement of the Honorary Secretary at the end of six years. He himself did not quite see why the Honorary Secretary should be turned out and apparently be ineligible again if the same rule were not applied elsewhere. Mr. Brodie's proposal, he considered, had many arguments in its favour and very few against it.

Mr. JOHN SLATER [F.] said he was perfectly aware that he was "the Old Man of the Sea" on the Council, and he would assure every member who had spoken that he did not feel that his remarks were in the slightest degree personal. If he were outside the Council he should probably have the same feelings himself. As a matter of fact, he was on the Council because he could not help it. He had frequently, when asked to stand again, pointed out that he had been on long enough and expressed his wish to retire. His colleagues, however, had pressed him to stand, and he had been elected, not by the Council, but by the whole body of members of the Institute. That was why he had remained on the Council so long. He could not help thinking that the scheme of compulsory retirement would be very deleterious to the interests of the Institute. If the proposal were carried and the By-law made retrospective the whole of the present members of the Council must go out in six years, and he had been long enough on the Council to feel that that certainly would not be in the interests of the Institute. The Council years ago, when drawing up the House List always used to have before it the list of attendances of members of the Council for the past year, and members who from other engagements, or ill health, or other cause had not been able to attend were not put into the House List. He thought Mr. Douglass Mathews' suggestion really seemed a possible way out of the difficulty. A certain amount of continuity in the governing body was undoubtedly necessary, and a certain amount of new blood was wanted. The difficulty was that the electorate did not know who were the men who really did the work on the Council. He himself under the circumstances should of course refrain from voting against Mr. Brodie's motion. They wanted new blood, but they did not necessarily want certain individuals to go off *ex necessitate rei*, because they could not be re-elected. He thought a possible way out of the difficulty would be this. The number of ordinary members of the Council was eighteen, and the next By-law No. 32 said that the Council were to put forward a House List, which was to comprise twenty-two Fellows and six Associates; and if this By-law were slightly modified so that the list put forward by the Council should not contain more than twelve names of the existing eighteen, letting the Council decide which names they would put forward and which they would not, that would be a real way out of the difficulty, because any member of the Institute who thought that the names which were not put forward of the past Council included those of members whom the Institute, or certain members of the Institute, desired to be re-elected, they could of course nominate them before the election came on; this would leave the Council free to do what the Council was really the only body able to do, to indicate to the general body of electors the members of Council who they thought had been doing the best work for the Institute. If they could devise some means by which the Council's List should not necessarily include all the old names, he thought they would get out of the difficulty, and a method might be devised which would be satisfactory, both to the outside members of the Institute who wanted new blood, and to those members who thought that the continuity of the business of the Institute ought to be preserved.

Mr. J. DOUGLASS MATHEWS [F.] said that perhaps he ought to mention now that he was going to propose on No. 32, after the words "and Associate Members of Council respect-

tively," to add the following: "but should not include six members of their number who have served on the Council for more than six years."

Mr. H. V. LANCHESTER [F.] said he was quite in sympathy with Mr. Brodie, and he only wanted to ask him one question: Did he feel that if a man was necessary to the Institute there was no objection to his going forward to the office of Vice-President?

Mr. BRODIE: Certainly not; that is what I should hope for.

Mr. LANCHESTER: Although I am quite in sympathy with you, I think this proposition utterly superfluous. As a matter of fact, I myself am the only member on the Council who comes under your ban. I have the list before me, and it shows that I am the only member who has at the present time served more than six years in one position on the Council.

Mr. BRODIE: Then in that case Mr. Hall's proposition falls to the ground, because there would be no great change next year.

Mr. LANCHESTER said he thought Mr. Mathews's proposal quite met the case, because in the past history of the Council there were only two instances, he believed, where a member had exceeded six years, and there were numerous instances where a member had been on for two or three years and then gone off. It had been an event of such rare occurrence in the past that the slightest alteration in the method of appointment of the Council would practically extinguish it. Therefore it seemed hardly worth while to devise a complicated system, with possible disadvantages, when the event against which the system was directed hardly ever occurred.

Mr. A. R. JEMMITT [F.] appealed to Mr. Brodie to accept Mr. White's amendment. If that were carried, the difficulty about sweeping off the old Council in a body, which no one wished to do, would be got over, and the end desired be obtained by a much better means. He should support the amendment for other reasons than those brought forward that evening. At the last Annual General Meeting, after Mr. Woodward's criticisms of the Report, the retiring senior Vice-President, speaking in defence of the Council, pointed out the immense sacrifice of time and labour entailed on the members of the Council; that all the work they did was solely and entirely in the interests of the Institute without personal gain or any kind or sort; that some of the busiest men in the profession gave up an enormous amount of time which at the ordinary scale of charge would work out at something like £1,500 or £2,000 a year. This was a splendid example of self-sacrifice, but the question was, ought they to accept it?—had they any right to accept these sacrifices?—were they justified in taking advantage of such good nature? This was a professional, not a philanthropic society, and he maintained that the Institute should not entail such sacrifices on some of the busiest men in the profession. It was, too, entirely unnecessary, as there were other men whose time was not so valuable who would do the work quite as well. This amendment would help to protect these gentlemen from being imposed upon, and he appealed to everybody who appreciated the services these members had rendered the Institute to show their appreciation by voting for the amendment.

Mr. BRODIE: I understand from members of the Council who are present and have spoken that if it were made a question for the By-laws Committee to consider that the limit of years a member may serve as an ordinary member should be nine, it would meet with general approval.

Mr. MURICE ADAMS said, as the second of Mr. Brodie's amendment, he would like to facilitate an agreement on this question by saying that he was prepared to accept Mr. White's proposition. Mr. Hall had told them that this by-law in the draft had been considered with the greatest care by the Council, and they had come to the conclusion that the President was wrong when he announced that there would be a rotation of members; it was evident that the

objections to the President's promise were sticking to their colours right manfully. He had seconded Mr. Brodie's amendment, but he was quite prepared to accept Mr. White's; and as long as they ensured what they were intending to have he should be satisfied. The Council had had an opportunity of discussing the matter and advising members, and this insufferable by-law was all they had brought forward. He himself had not been at all convinced by what Mr. Hall, Mr. Slater, or Mr. Hare had said.

Mr. HARE observed that the proposal formulated in the amendment was a much more complicated matter to work out when they got down to figures than its supporters seemed to think and he appealed to them to modify the amendment in such a way that it would be open to the Committee who had considered the matter to put it into a workable shape. As worded, he was afraid it could not be made to work at all, and it would be better to withdraw it than to saddle the By-laws with an impracticable regulation.

A MEMBER: It has not been found impracticable at the A.A. Why should it be here?

THE CHAIRMAN said he would endeavour to put the points that each of the proposers of amendments had brought before them. In the first place they would find by reading By-law 31 that this proposal, or any proposal, applied only to the eighteen Fellows who are members of the Council.

Mr. BRODIE: And six Associates.

THE CHAIRMAN: Your amendment, as drafted, does not apply to them.

Mr. MIDDLETON: I intended it to apply. Mr. White's amendment should read, "The ordinary members and Associate members."

THE CHAIRMAN, continuing, said that the proposal Mr. Brodie had brought forward distinctly limited his proposal to a six years' membership, with a one, two, or more years' interval before members should be again eligible for election to the Council. As Mr. Brodie put it, that proposal was applicable to the Fellows of the Council, being eighteen in number. If Mr. Brodie now wished to amend it so as to include the six Associates he was quite willing to accept it. But before going any further he must point out that a crude proposal of this kind limiting a tenure of office to six years with a two years' interval would have to be referred to the By-laws Committee. The Meeting must give them the spirit of what they intended: the By-laws Committee would then lick it into shape and submit it again to the General Body. Whatever proposition was passed must be dealt with in that way. Mr. White's proposition was of a different type, and practically meant a change every year of one-sixth of the *personnel* of the members and Associate members of the Council, with a two years' interval. Mr. Brodie seemed almost inclined to withdraw his amendment in favour of Mr. White's.

Mr. BRODIE: I shall vote for Mr. White's, and see what happens.

THE CHAIRMAN said he would read to the Meeting the original proposal of the By-laws Committee, which was very similar to Mr. White's proposal, but attained the same object in a slightly different way. It was true that the President in his Address had spoken of some proposal to quicken the rotation of members of the Council, and the matter had received most careful consideration, with the result that the by-law was put forward in the form now before them. The By-laws Committee's original proposal read: "Every year the three members of the Council who have had the longest current tenure of their seats become ineligible for a period of one year. In the event of there being more than three whose current unbroken continuity of office shall be the same, then the three who have been longest on the Council become ineligible." That practically was a sixth of the eighteen members who by seniority became ineligible, and seemed a very similar proposal to that

of Mr. White. The third proposition—that intended to be brought forward by Mr. Douglass Mathews on No. 32—was that the number of names put forward by the Council on the House List should be restricted, say, to twelve, and that other members might be nominated by the General Body. In these three different propositions entirely different principles were involved, and they ought to make up their minds as to which of the principles they intended to adopt. If, for instance, they carried Mr. White's motion they obviously could not on Clause 32 carry Mr. Douglass Mathews's, as the machinery provided in No. 32 would be governed by the amendment proposed to No. 31. Again, if they adopted Mr. Brodie's amendment it would be equally impossible to adopt Mr. Douglass Mathews's.

Mr. SAXON SNELL: On a point of order, can Mr. Mathews make his proposal on No. 32 as an amendment now?

Mr. DOUGLASS MATHEWS: My object was to give the intimation that I intended to move the amendment referred to on No. 32, but I do not see that it is possible to do so until No. 31 is disposed of. The amendment I have given notice of would probably influence the voting on No. 31.

Mr. W. Henry White's amendment was then put from the Chair as follows: "One sixth of the ordinary members and Associate members of the Council shall retire each year, and shall not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of equality of seniority the rotation to be decided by lot."

Upon a show of hands the numbers were declared as follows: For the amendment, 16; Against, 10.

THE CHAIRMAN having declared the amendment carried, it was pointed out by Mr. Slater that under By-law 62 a proposition affecting a By-law must be carried by a majority of at least two-thirds of those present having a right to vote and voting thereon. The sixteen declared to have carried the amendment did not constitute a two-thirds majority, and the amendment was therefore lost.

After some discussion, the Chairman decided that as there had been some misconception with regard to the two-thirds majority, he would again put the amendment to the vote. This was done and resulted in the amendment being carried by a two-thirds majority—16 for, 8 against.

THE CHAIRMAN proceeding to put Mr. White's amendment as the substantive motion,

Mr. DOUGLASS MATHEWS proposed that the Meeting should consider No. 32 before finally voting upon No. 31. He would then be enabled to bring forward his amendment.

Mr. SAXON SNELL: I second Mr. Mathews's proposal that we consider No. 32 now.

Mr. SLATER: May I point out to Mr. Mathews that he can raise the question he wishes on an amendment to this as a substantive motion? He can move that the retirement of the six members be not by seniority, but be left to the Council to decide.

Mr. DOUGLASS MATHEWS: That does not quite meet my view. My idea is that the House List should contain the names of so many as are laid down here, but that six of the members who had served on the Council more than six years should not be included on the House List. That would not prohibit anyone proposing the re-election of any member of the Council. By that means they could still nominate any members of the Council who were thought desirable or important. The amendment just carried would shut out the six older members after six years. That is most undesirable.

Mr. MAXWELL ADAMS said he must oppose Mr. Mathews's proposal, because it would leave it open to the Council to stultify the whole business by simply renominating themselves the members that had retired. The Meeting would do well to stand by what they had just decided upon. He could not imagine what they were all frightened at. Did they think the Institute could not go on unless they returned again precisely the same persons who now happened to be on the Council? He most respectfully

protested against that. The wider their base the better it would be for the Institute. He had knowledge of a great many architects whom they might all be proud to have on the Council. There were men from the provinces who had practices in London and had London offices—one in particular he had in mind who, he was sorry to say, had not been elected this time. They had done a healthy thing in passing Mr. White's amendment, and he begged them to stick to it for the best interests of the Institute on broader lines.

Mr. JERRETT: Would it not be more in order to put Mr. White's amendment as a substantive motion, and let Mr. Mathews come on afterwards. Possibly the arrangement Mr. Mathews suggests could be adopted, although Mr. White's be passed as a substantive motion.

Mr. CROW: If Mr. Douglass Mathews's proposal is not supported, I should certainly propose, as an amendment to the substantive motion, that the members who retire should be those who receive the fewest votes of the electorate. The scrutineers would report the results of the election and knock off the four lowest or the successful candidates, and put in their places the four highest of the unsuccessful men.

Mr. A. S. TAYLER [L.] protested against the Council's being charged with such an invidious duty as that which Mr. Douglass Mathews's proposal would put upon them.

Mr. DOUGLASS MATHEWS: My suggestion is that six of the members who have served on the Council for more than six years should not be put on the House List. I think that answers the last speaker's objection.

Mr. CROW seconded Mr. Mathews's proposal.

THE CHAIRMAN: Your proposal, Mr. Douglass Mathews, is an amendment to the substantive motion.

THE SECRETARY: The substantive motion is: "That one-sixth of the ordinary members and Associate members of the Council shall retire each year and shall not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of an equality of seniority the rotation to be decided by lot."

Mr. DOUGLASS MATHEWS: My amendment then would be that the words "and shall not be eligible for re-election for two years" be omitted.

Mr. SAXON SNELL seconded the amendment.

A MEMBER: May I point out that, according to the amendment, the members who have to retire would never be eligible for election again?

THE CHAIRMAN: It is obvious that they would not be eligible for re-election.

Mr. Douglass Mathews's amendment, being put to the vote, was defeated.

THE CHAIRMAN having put Mr. White's amendment as the substantive motion.

Mr. LEONARD STOKES pointed out that the wording of the motion was incorrect, because the whole Council retired, as a matter of course, every year. The point was that one-sixth should be ineligible for re-election.

THE CHAIRMAN: We understand, however, what the meeting intends.

Mr. HALL: This proposal had better be worded by somebody who can grasp its meaning. I am sure you will find you have got into a dreadful tangle.

The substantive motion being put to the vote was declared carried by 18 to 9.

Mr. CROW, referring to the small number voting compared with the total number of Fellows, gave notice that he should take the requisite steps to have a poll taken of the whole body.

On the motion of Mr. MAX CLARKE the meeting adjourned, and it was decided to resume the debate on Wednesday, 23rd June, the chair to be taken at 5.30.

* * * The proceedings at the Adjourned Meeting of the 23rd June will be reported in the next issue.



9 CONDUIT STREET, LONDON, W. 26th June 1909.

CHRONICLE.

Additional Premises for the Institute.

A Special General Meeting, summoned by the Council under Clause 22 of the Charter and By-law 60, was held on Wednesday evening, 23rd June 1909, to consider a resolution authorising the Council to purchase on behalf of the Institute the leasehold interest in parts of Nos. 9 and 11 Conduit Street and No. 23A Maddox Street, adjoining those at present occupied by the Institute, and to raise out of the funds of the Institute the moneys required for carrying out and completing the said purchase and making the necessary alterations to the premises and paying the costs of the purchase.

Mr. LEONARD STOKES, *Vice-President*, who took the chair in the absence of the President, said that before moving the resolution of which notice had been given, he would briefly put the position of affairs before the Meeting. Members were aware that the Institute was much cramped for room in the present premises, and they were also probably aware that at the back of the premises there were certain galleries which in olden days used to be hired occasionally for the Institute's purposes, so that they knew pretty well to what use they might be put. These galleries were very suitable for the Institute's requirements—for exhibiting, for instance, students' drawings submitted in competition for the Prizes and Studentships, for holding examinations, and for other purposes. More room, too, was wanted for the Library to avoid its being disturbed every time there was a meeting. The Council therefore had had under consideration the acquirement of these galleries, and an opportunity offering which they considered favourable they had entered into negotiations for them. The rent at present paid for the Institute premises amounted to £935, which included the rates. The Council's proposal was to acquire the lease of the galleries, which had practically fifty years to run. This would involve an additional payment for rent of £750 a year, with an added £55 for a little separate lease, bringing the total annual rental for the whole premises up to £1,740. Mr. Howard Martin, who had made a

valuation for the Council, reported that the annual value of the whole premises was £1,817, so that the Institute would not be paying the full value that might be put upon the premises. But then came in the awkward part of the business: to acquire the premises at all they would have to pay £10,000 as a sort of premium. That would mean an annual payment of £1,740, plus the interest which would be lost on the £10,000 to be taken out of their funds. They would have to pay, in effect, £10,000 down and £1,740 in rent for the future. These galleries, however, were very suitable for letting purposes, and it was thought the Institute might be considerably recouped by letting them for exhibitions, meetings, and such-like purposes. In all probability they would be able to recoup themselves the £250 or £300 that would be lost as interest on the £10,000. To be quite frank with the Meeting, the Chairman continued, he did not think he could persuade them they were making a very splendid bargain: still, it was the best bargain they could make. If they wanted the premises, they would have to give that sum for them: but if they did not want the premises, and thought they ought to go elsewhere, he might tell them from past experience that the Council had always found, when they went into figures, that anything like a new building would cost infinitely more in proportion. They could never get the same accommodation in a similar sort of place for anything like the same sum of money. So that, although they might think that £10,000 was a large sum to give in the shape of a premium, they had either to give it or leave it. The Chairman concluded by formally moving the following resolution, the precise terms of which, he said, had been suggested by the Institute solicitors:

"That the Council be authorised to enter into a contract on behalf of the Institute, in a form to be approved by the solicitor of the Institute, for the purchase by the Institute of the leasehold interest of Messrs. Knight, Frank & Rutley in parts of Nos. 9 and 11 Conduit Street and No. 23A Maddox Street at a price not exceeding £10,000, and to carry out and complete the purchase; and that the Council be authorised to raise out of the funds of the Institute such sum not exceeding £10,000 as may be required for the purchase of the said leasehold interest."

Mr. JAMES S. GIBSON, *Vice-President*, in seconding the resolution, said that as one who had had some little experience in this matter of accommodation for the Institute, and having had knowledge of the various schemes that had been brought before the Council, he had not the slightest doubt that the adoption of such a scheme as that now proposed would get them out of their troubles for the future, and would in the end be much more economical than any building scheme that had been before them during the last ten years. "We are located here," Mr. Gibson went on; "everyone

knows we are here. The galleries offered to us are quite suitable for the whole of our purposes, and, I think, absolutely essential to the conduct of the business of the Institute. I for one do not think we can acquire them on any more favourable terms than those now embraced in the resolution."

THE CHAIRMAN: I should like just to add that, when we have acquired these premises—if we do acquire them—it will be just as easy to part with the whole, if we want to, as it would be to part with our present holding; in fact we could do so with much greater advantage to ourselves.

MR. H. HARDWICKE LANGSTON [A.]: If this proposal is carried out, the fact should not be lost sight of that it would absorb, if not entirely extinguish, the fund we have earmarked in our annual budget as the Building Fund, and there would be no incentive for any further contributions to that fund. I submit, too, that it is not altogether the fact that our existence upon this spot is so absolutely necessary that we should pay a large price for a leasehold interest only. If we could acquire some security from the ground landlords that when the lease has expired we should have the option of the site, so that our successors may feel that their wants had been anticipated, the proposal would be much more satisfactory to the Meeting.

THE CHAIRMAN: The lease we shall acquire will be held from the Architectural Union Company, who have practically a perpetual lease, renewed on payment of a small fine periodically. I think the Institute ought to be able to deal with them in fifty years' time, and there is every probability, I think, of the Institute's becoming perpetual tenants of the property.

MR. LANGSTON: The Architectural Union Company may have that perpetual lease, but I suppose they will have to pay an enhanced price when the present lease expires, and the Institute might then find itself displaced.

THE CHAIRMAN: I am informed that it is a City lease, and that the Architectural Union Company hold direct from the freeholders.

MR. F. T. W. GOLDSMITH [F.]: I have the very strongest feeling that it is most important that the Royal Institute of British Architects should remain here or very near here. It would be a great mistake to move from Conduit Street. Without expressing any opinion on the amount to be paid to Messrs. Knight, Frank & Rutley for their interest. I desire formally to associate myself with the Chairman's remarks as to the importance and necessity of remaining here and of acquiring premises which I feel sure will be very useful to us and very suitable to our needs. Many years ago I was associated with a scheme for finding premises for the Architectural Association, and the difficulties we experienced then I feel sure the Council must have experienced in their similar work on behalf of the Institute. The resolution has my hearty support.

THE CHAIRMAN, replying to Mr. John Murray [F.]:

Our lease expires in eleven years, and we have the option of renewing it at the same rent until it terminates in fifty years' time. We hold our lease from the Architectural Union Company, and the Architectural Union Company hold from the Corporation.

MR. E. P. WARREN, F.S.A. [F.]: Has any estimate been formed of the amount necessary for converting the premises to our use and redecorating them?

THE CHAIRMAN: We have a rough idea that it will cost £2,000.

MR. WOODWARD: I understand that the Architectural Union Company hold from the Corporation. The Corporation, therefore, are the freeholders. Do you know what is the term held by the Architectural Union Company? Is there any residue between the Architectural Union Company and this long lease you are proposing to take, and if so, how much?

THE CHAIRMAN: The lease we propose to take is the lease which Messrs. Knight, Frank & Rutley hold from the Architectural Union Company. The Architectural Union Company hold from the Corporation of London a perpetual lease with a fine.

MR. WOODWARD: I quite agree with the observations made as regards the position of Conduit Street for the Institute. The situation is excellent, and it is quiet. I understood Mr. Howard Martin valued the premises at £1,817. If you take the premium we are to pay of £10,000 at 5 per cent., and add that to the £1,740, we get at the sum of £2,240, as against Mr. Howard Martin's £1,817.

THE CHAIRMAN: We are only getting at the present moment about $3\frac{1}{2}$ per cent. for that £10,000.

MR. WOODWARD: Then I agree with you, Sir, that it might very well be said that the interest on the premium will be exhausted, or, rather, reimbursed to you, by the rent you will obtain from the portion of the premises you let. I understand that the £2,000 you have just mentioned represents the probable expenditure on such alterations and additions as may be desirable to make. Therefore, taking the whole of that into consideration, it does not appear to me, bearing in mind the large area and the position of these premises, as a matter of pounds, shillings, and pence, that you are exceeding in any way what ought to be paid for such premises as these. The only thing one regrets is that it does put an end, as Mr. Langston has suggested, to our idea of continuing to raise the fund for a new building. It is perfectly obvious that, although these premises are very fine, and no doubt the alterations and the uses to which you will put the additional part are commendable, if you had a vacant site you could design a building which would be much more usefully planned for the Institute than the present premises. There is, however, this hope: it may be possible in a few years to enter into negotiations to secure a

building lease of these premises, and then you could gradually build: and if the Council will take that into consideration we might still continue our building fund. I quite support the Council's proposition, but I hold strongly that we should go on with the building fund in the hope that our successors may be able to get a building lease of this site and erect premises suitable for the Royal Institute of British Architects.

THE CHAIRMAN: There is no reason why we should disturb the building fund if you consent to our raising the £10,000 from other sources.

Mr. PERCY TUBBS: Would the Architectural Union Company agree to the Institute's acquiring their interests? If it could be done, it would be wise to get a direct lease.

Mr. H. A. SATCHELL [F.]: Could you give us a more detailed idea as to the additional accommodation we require? There are three galleries downstairs. It has often been objected that these rooms are not large enough for our meetings. Is it proposed that the meetings should be held in the room downstairs, or has the Council with its £2,000 any scheme for enlarging them?

THE CHAIRMAN: I am afraid I cannot give you anything very definite. Two or three schemes have been floating in the minds of the Council, but we thought the first step was to get your consent to acquire the premises. We could then adapt them in two or three ways. The probability is that we should use the large gallery downstairs for the meeting-room and leave this for the Library. That, however, is only my personal opinion.

Mr. MIDDLETON: If the Examinations are to be held in the new galleries, what saving would there be in the rent on that account?

THE CHAIRMAN: Our present rent is £935 for these premises, and we pay in addition £142 for other premises to hold the Examinations and exhibit the students' drawings. We should save that £142, but I do not think it is fair to count it as saving. Our present rent, instead of being £935, is really £1,077.

Mr. MIDDLETON: We shall save that amount, and I think it might go towards the sinking fund of the £10,000.

Mr. MAURICE B. ADAMS [F.]: As regards the expenditure of the £2,000 mentioned, we are absolutely free, I understand, to spend anything we feel inclined to spend. There is no obligation, I take it.

THE CHAIRMAN: The only obligation is the ordinary obligation to keep the premises in repair.

Mr. HAMDEN W. PRATT [F.]: Would the Institute be the sole occupiers of the premises when they have bought out Messrs. Knight, Frank & Rutley?

THE CHAIRMAN: The Union Company, I think, retain one small office; otherwise we should have the whole premises.

Mr. JOHN MURRAY [F.]: I should like to support

the resolution. I know something about the great difficulty in acquiring premises in this neighbourhood, and as a sound business transaction I think it would be a most useful thing for the Institute to carry the resolution. There are great difficulties in acquiring interests which are more or less uncertain, and these things can only be done satisfactorily by going step by step.

Mr. WOODWARD: If you take these premises I feel quite sure that you might get a very considerable revenue, as the Surveyors' Institution does, from letting the galleries for arbitration purposes.

THE CHAIRMAN, replying to Mr. Max Clarke [F.]: The Architectural Union Company pay the rates up to £300, and we should have to pay the half of any excess over that, and that half excess has hitherto been £27 per annum. Our present rates are paid by the Union Company.

Mr. MAX CLARKE: Do you know what the rating on the premises we are about to acquire is?

THE CHAIRMAN: It is £354; the Architectural Union Company pay £300 by arrangement, and the excess over £300 has to be halved between them—Knight, Frank & Rutley pay the one-half and the Union Company the other half. As we acquire this lease on their terms, I take it that that arrangement would hold good when we take over the premises.

Mr. MAX CLARKE: Has that lease eleven years to run?

THE CHAIRMAN: Forty-nine years.

Mr. MAX CLARKE: What was the eleven years' lease you mentioned?

THE CHAIRMAN: As to the premises we now occupy the lease can be terminated in eleven years; but we have the option of taking it on for another forty or thereabouts.

Mr. WOODWARD: Is the option on our side alone?

THE CHAIRMAN: Yes.

Mr. MAX CLARKE: Has the lease down below ever been renewed, and if so, has any premium or consideration been paid for it?

THE CHAIRMAN: Knight, Frank & Rutley have only had it about twelve years I think.

Mr. MAX CLARKE: Then, Sir, it would appear that if Mr. Howard Martin valued this place at £1,817 per annum and you pay £1,740, and also £375, something like 3½ per cent. for your £10,000, you would be paying £2,115 for the premises, and the difference between that and £1,817, Mr. Martin's valuation, is £298 a year. Then there was an odd sum of £75 which you mentioned, bringing it up to about £375 per annum. If that is the case, it appears to me to be a most desirable state of affairs. There are, I know, many people who do not think this is a proper place for us. I have heard various arguments that we should be in Westminster, but that is a matter of opinion; we are here, and we are known to be here. Again, although £10,000 appears a very large sum, I see

in the last report that we have got something like £26,000, so that we are quite able to pay the £10,000 without serious inconvenience, and I do not think we should give any second consideration to the matter.

The resolution, having been put from the Chair, was voted upon by show of hands, and carried unanimously.

The President's "At Home."

The President's second "At Home" since his election to the Chair a year ago took place in the rooms of the Institute on Monday, 21st June, and attracted a large attendance of members, some two hundred being present from all parts of the country. A much appreciated feature of the occasion was the exhibition of water-colour drawings and etchings, which the President, thanks in most cases to the artists themselves, had been able to arrange for his guests. Unhappily the exigencies of the Library, where the drawings were hung, necessitated their immediate removal after the function, and the notes Mr. Joass has kindly contributed below had to be written after viewing them under difficulties, and without the opportunity he hoped for of more leisurely inspection in the morning. The following is a complete list of those whose works were represented:—

Hippolyte J. Blanc, R.S.A.	George Hubbard, F.S.A. [F.]
F.	H. V. Lanchester [F.]
Reginald Blomfield, A.R.A.	Mervyn Macartney, F.S.A.
F.	F.
Horace T. Bonner [A.]	C. E. Mallows [F.]
Walter Cave [F.]	Walter Millard [A.]
H. C. Charlewood [F.]	Prof. Beresford Pite [F.]
F. Dare Clapham [F.]	Wm. A. Pite [F.]
Thos. E. Colcutt [F.]	Andrew N. Prentice [F.]
J. D. Craze [H.A.]	Herbert Read [F.]
E. Guy Dawber [F.]	John W. Simpson [F.]
T. E. Eccles [F.]	R. Phené Spiers, F.S.A. [F.]
Wm. Flockhart [F.]	Andrew T. Taylor, R.C.A. [F.]
Ernest George (President).	Paul Waterhouse [F.]
Curtis Green [A.]	Sir Aston Webb, R.A. [F.]
Mowbray A. Green [F.]	Maurice E. Webb
S. K. Greenslade [A.]	Douglas Wells [A.]
Stanley Hamp [A.]	Edmund Wimperis [F.]
Gerald C. Horsley [F.]	A. B. Yeates [F.]

Exhibition of Water-colour Drawings at the Institute.

The President's "At Homes" have now come to be a recognised part of the life of the Institute, and the display of drawings and other objects connected with the craft which have been got together on these occasions is one of their greatest attractions. We have seen here the work of some of our best sculptors, not only in its finished state, but also their sketches and designs in all stages of development, and a sympathetic chord has been struck which the usual exhibitions do not touch. The exhibitions of drawings by some of the "Old Masters" of the profession have also been most interesting, and even encouraging, to those of the younger generation.

This year a new vein of talent has been revealed by inviting drawings not necessarily of an architec-

tural character, and the result has been a most charming and interesting exhibition. One of the first points that struck one was the great diversity of style of the drawings as compared with the yearly exhibitions at the Alpine Club. This, I think, points to the fact that a fairly well-defined style of architectural drawing is being evolved, and although the work of the younger school is not in evidence the source of much of their inspiration can be clearly traced in some of these drawings.

The President's powers in this direction are well known, and his two contributions, "The Rialto Bridge" and "Cremona," are among his happiest efforts. There were also two drawings by Mr. Flockhart, the view of Burlington Street being especially a very beautiful work. The drawings by Mr. Walter Cave are also extremely fresh and unconventional in treatment, and Mr. Phené Spiers is at his best in the "Doorway at Lucca."

Mr. Mallows' work is too well known to require special notice, but "Blois, from the Upper Gallery," strikes one as being characteristic of his distinctive style and his skill in choosing a striking point of view. Professor Reginald Blomfield's sketch of a river scene is a charming example of this class of work, which, however, is usually much neglected by architectural students. I should mention also the fresh water colour sketches by Mr. Colcutt.

The coloured sketches of Mr. Lanchester and Mr. Greenslade are examples of water-colour work differing widely in execution but excellent in style. The sketches of Professor Pite, Mr. Prentice, and Mr. Horsley might also be referred to, as their work has greatly influenced the development of the more recent architectural draughtsmanship.

Altogether the exhibition was a most interesting one, and it is to be regretted that the Students and Probationers have had no opportunity of seeing and profiting by it.

J. J. JOASS [A.].

Notice to Members.

The attention of the Council having been called to the fact that the Royal Institute address has been used upon circulars and other correspondence emanating from a body called "The Institute Members' Club," the Council desire it to be known that this has been done without the knowledge or approval of the Council, and that there is no official connection of any kind between the Royal Institute and the club in question.

Visit to London of the German Garden City Association.

A party of two hundred members of the German Garden City Association is visiting England next month to see what is being done here in connection with Garden City and Town-planning work. They are expected to be in London from the 12th to the 17th. About sixty of the party are architects.

many of them official architects: the others consist mainly of town councillors and municipal officials. Arrangements are being made for a reception in honour of the visitors to be held by the President and Council R.I.B.A. in the rooms of the Institute on Tuesday, 13th July, at 9 p.m. An address of welcome to the visitors will be delivered at 9.30. The arrangements for this function are in the hands of the R.I.B.A. Town-Planning Committee.

Proposed Central Institute at Rome.

A proposal emanating from the British Ambassador at Rome, that some effort should be made to unite under a common roof the various institutions in Rome, which to some extent overlap, is under consideration by the Committee of the British School at Rome. Besides the British School, with which it is hoped to incorporate the archive work, there is the British Academy of Art, which has its own endowment and which would be useful to students of architecture who wish to perfect themselves in drawing. There is further the British and American Archaeological Society, which it is thought would contribute a sensible sum for the use of a lecture room. The idea is to form a Central Institute in which each section could retain its own functions and constitutions and to some extent funds, but all contributing to the common roof and having a common lecture room. The Committee of the British School having intimated that an official representative of the Institute would be welcome on their body to assist in their deliberations, the Council have appointed Mr. John W. Simpson [F.].

The Colonnade, Bath Street, Bath.

The Statement recently issued by the Corporation of Bath* defending their action with regard to the projected demolition of the colonnade on the north side of Bath Street has been replied to by the Old-Bath Preservation Society in a pamphlet headed "The Official Statement of the Bath Corporation Examined, Criticised, and Refuted in every important particular."† The Corporation, the pamphlet states in an opening paragraph, "admit that they own the corner house in Bath Street, facing Stall Street, but they glide lightly over the civic responsibility attaching to ownership of this piece of property, as also of the ground-rents of the other houses in the street; and they have nothing to say in regard to a matter upon which an increasing number of the public feel deeply—viz. the duty of a Corporation to jealously defend the special character of their city, to preserve its characteristic architecture, and to safeguard any historical or literary associations it may possess." Referring to the Corpora-

tion's assertion that the "utmost publicity" has been given to the matter, the Preservation Society asks how such a statement can be reconciled "with the fact that the plans of the present proposals have never been publicly exhibited, have not been submitted to the judgment of the Council itself, and that no single person outside that body has ever been permitted to see them." As regards the alleged lateness of the opposition, "the truth seems to be that no one, not even the Corporation, realised what was intended. As soon as it did become known that the scheme involved the destruction of Bath Street, steps were taken to protest in the most forcible manner against such a disastrous proposal." The Society gives direct contradiction to the Corporation's assertion that experts differ as to the architectural value of Bath Street. "On the contrary," it says, "no architectural *cause* of recent times has given rise to such an overwhelming expression of undivided opinion" as to the value of the street from an architectural and street-planning point of view, and the opinions are quoted of architect members of the Royal Academy, the Society of Antiquaries, the Society for the Protection of Ancient Buildings, the President and Art Standing Committee R.I.B.A., the architectural journals, Professors Reginald Blomfield, A.R.A., Beresford Pite, Mr. Mervyn Macartney, &c. Various points referred to in the Corporation's Statement are dealt with at length in the pamphlet under the following heads: "The Scheme for the Building of Bath," "Bath Street an Integral and Vital Feature of the Building of the Baths," "Bath Street as Part of 18th Century Bath," "Value of Bath Street in the Popular Estimation," "Interesting Associations of the Street," "Survival of a Roman Idea," "The Legal Aspect," &c. To Mr. Bligh Bond's report, which was appended to the Corporation's Statement, the Society replies as follows (pp. 10 and 11):

Careful examination of the houses by competent persons has revealed the fact that Mr. Bligh Bond has unduly depreciated their construction and condition.

The houses were erected in a manner which was carefully specified in the original covenants by the Corporation.

The outer stone walls are certainly only six or seven inches thick, but this is not unusual in Bath, and probably was in this case purposely specified in order to avoid over-weighting the columns. The party-walls which tie the front and back walls together are two feet thick for the greater part of their length, and are reduced to a thickness of six inches only where they project over the covered walk. The signs of crushing which appear at some points in the beams supporting the front are due not to any inherent weakness of the construction, but probably to the fact that they have been impaired by neglect.

The bulging and the presence of the iron tie-rods are not due to faulty construction but to the manner in which the original building has been mis-handled. At the points where these defects are visible the party-walls which originally tied the front to the back have been clumsily cut through and the evil aggravated by the construction of angle fire-places abutting upon the front wall, thus imposing upon the columns a far greater weight than they were intended to carry. This treatment occurs at one point where an old weakness of the foundation existed. Had the

* Summarised in the JOURNAL R.I.B.A. for 8th May last.

† Copies of this and another pamphlet dealing with the same subject and published by the Old-Bath Preservation Society may be seen in the Library.

building been left as originally designed, or the alterations carried out in a careful manner, the walls would not have bulged out as the report suggests was to be expected in any case.

Moreover, in some of these houses, considerable alterations have been effected in the basement, involving in some cases the removal altogether of the supporting wall and the insertion of girders and beams.

The houses upon the opposite side which have been better cared for display no signs of disruption with the exception of depressions in the beams at one or two points.

While it may be possible to show that in theory the columns are loaded to their fullest extent, the practical fact remains that they have borne the weight upon them for about a century without showing any sign of giving way.

The wall which is described in the report as being "built in the air" has been sought for in vain! The wall probably referred to is the inner wall of the colonnade which was intended to be carried down to the basement, and in most cases has been so built; where it has been omitted, or has afterwards been cut away, ample support for the upper part has been provided.

It is an exaggeration to describe the condition of the structure as "distinctly perilous," or as being in such a state of disrepair as to be beyond reparation.

The condition of the premises is actually no worse than that of other buildings which have been uninhabited for some years, and certainly the houses can be restored and renovated so as to endure for an indefinite period.

British Excavations at Sparta.

The Times correspondent at Sparta states that the excavation of the Menelaon, the reputed tomb of Menelaos and Helen and the scene of their cult, by the Director and Students of the British School of Archaeology in Athens, has resulted in the discovery of interesting remnants of the Mycenaean age—the first which have been found in Sparta. Bricks coated with Mycenaean plaster, which in some cases shows traces of fresco painting, and fragments of Mycenaean pottery of a local type have been found both below the monument and in an adjoining building. Other Mycenaean remains have been discovered in the neighbourhood. The site may possibly prove to be that of the Mycenaean Sparta. The monument itself, which is built of large conglomerate blocks, appears to be of the fifth century B.C. At the foot of a slope, a little below it, a number of bronze and lead votive offerings, apparently of the seventh century, have been found, including figurines, beads, and double-headed axes, fibulae, and plaques, together with a large quantity of terra cotta—some of exceptional workmanship—of the second or best period of Laconian art. The pottery found in the immediate neighbourhood of the monument ranges from Mycenaean in the lowest strata to that of the sixth period of Laconian art (about 400 B.C.) The complete excavation of the whole site will be reserved for next year.

The Illuminating Engineering Society.

A Society, to be known as the Illuminating Engineering Society, is in course of formation, having for its object the study of the science and art of illumination in this country. The constitution and

by-laws drawn up by the executive committee were formally ratified at a meeting of the supporters of the Society held on 25th May at the St. Bride Foundation Institute, E.C., Mr. Charles Hastings in the Chair. The executive committee, forming the nucleus of the first Council of the Society, were then reappointed, and it has been decided to approach a number of gentlemen, whose names were approved by the meeting, with a view to their being invited to act as officers or on the Council of the Society. Members duly proposed and seconded will be elected by the Council, without the formality of ballot, up to the beginning of the first session of the Society. The Hon. Secretary is Mr. L. Gaster, Editor of *The Illuminating Engineer*, 32 Victoria Street, S.W.

Portraits of Past Presidents.

The commission to paint for the Institute the portrait of Mr. Thomas E. Colcutt, *Past President*, has been kindly accepted by Mr. A. S. Cope, A.R.A., and a valuable addition to the Institute's collection of portraits may be expected. Subscriptions are invited from members of the Institute. Cheques, headed "Colcutt Portrait Fund," should be made payable to "The Secretary R.I.B.A."

Central School of Arts and Crafts.

At the meeting this week of the London County Council the Education Committee reported that, having regard to the importance of the work of the Central School of Arts and Crafts, and its relation to the development of arts and crafts both within and without the county, they have appointed a Visiting Committee, composed of eminent men connected with arts and crafts work, to visit the school and advise them on matters relating to the work. The following gentlemen have consented to serve on the Visiting Committee:—Mr. G. Clausen, R.A., Mr. Emery Walker, Professor Gerald Moira [H.A.], Mr. Hamo Thornycroft, R.A., and Mr. R. Anning Bell.

Obituary.

Mr. NATHAN SOLOMON JOSEPH, who died on the 11th inst. in his 75th year, was elected Associate of the Institute in 1863, and Fellow in 1890. He was senior partner in the firm of N. S. Joseph, Son, & Smithem, but retired in 1903, leaving his two partners, Messrs. Charles Sampson Joseph and Charles James Smithem, to continue the practice under the firm name of Joseph & Smithem. Mr. Joseph was architect to the Guinness Trust and the Four per Cent. Industrial Dwellings Company, and was also employed for similar work by the London County Council, and other public bodies. *The Builder* of the 19th June publishes a long list of important works carried out by him in conjunction with his partners. Mr. Joseph devoted many years of his life to the cause of the Russian Jews, and only

retired a few months ago from the post of chairman of the Russo-Jewish Committee, which was founded in 1882 to administer the Mansion House Fund raised on behalf of the victims of Russian persecution. He was an energetic member of the Jewish Board of Guardians, a life member of the council of the United Synagogue, vice-president of the Jews' Hospital and Orphan Asylum, and of the Maccabaean Society. He was the author of several works on the Jewish religion, the best known being *Religion, Natural and Revealed*.

News has but just reached the Institute of the death, in February 1907, of Mr. FREDERICK HYDE POWNALL, of Twickenham, elected *Associate* 1857, *Fellow* 1860.

Mr. HENRY STOCK, of Sandown, Isle of Wight, *Fellow*, elected 1885, died on the 11th June.

Señor Don JOSÉ URIOSTE Y VELADA, of Madrid, *Hon. Corresponding Member*, elected 1905, died on the 24th May.

In the distribution of His Majesty's Birthday Honours, a Companionship of the Bath (C.B.) has been conferred upon Mr. Hay Frederick Donaldson [H.A.E. M.Inst.C.E., Chief Superintendent of the Royal Ordnance Factories.

THE PERFECT HOUSE.

By E. SWINTEN HARRIS [F.].

IF asked to design "a perfect house," an architect might reasonably reply, "There is no such thing." Let us accept this tentatively, but at the same time admit that it is an ideal worth striving after. Over forty years' experience in house building leads me to say that much thought and hard work, together with perpetual knowledge and recollection of the great importance of little things, are among the means necessary for even an approach to it. It has been well said that "circumstances alter cases;" simple rules, however, founded on experience, are rarely to be altered with advantage.

A good house should be weather-, damp-, and vermin-proof, substantial, convenient, comfortable, healthful, home-like, economical in cost and service, enjoyable, beautiful, in good taste, with just proportions, and right, so far as possible, both as to aspect and prospect, and as pleasant to live in as to look upon: one in which all the interest in the work would not be grasped in an hour, but in which, the longer and more exacting the examination be, the more would its convenience and beauty become apparent: this can only come about after mature and deliberate thought and painstaking effort: to live in such a house is to add very materially to the joy of existence.

As in the art of illuminating, "no beauty of ornament will redeem an unudy text," so with the house, no beauty of design will redeem a badly thought-out plan. I go so far as to differ from a great authority in saying that very much sentiment may be infused into it. The best design will fail in the long run to impress if the plan be bad; but the well-arranged house, however deficient in beauty, will always retain its own distinct value through the merits of a good one. The "perfect house" will secure both. The best of us make mistakes, and it has been tritely said that "the man who never made a mistake never made anything;" but that is no reason why we should not do all in our power to minimise them, and the one simple method is the gathering up, and striving to steer clear of, the mistakes made by others. Though the architect is often made to suffer for his own errors, it is obviously unjust to censure him for the vagaries of his client after having warned him against them; in equity as in law this should always be borne in mind; and if his responsibility is to be insisted on, his rewards for the successful avoidance of mistakes should be liberal in due proportion to such success. This in no sense minimises the great help received from many of them. The architect will be the more beloved if he thinks of his client's comfort at least as much as he does of the joys of his art: like most duties, when boldly faced, he will be sure of his reward.

A trusting client, and a good, intelligent, honest builder—and there are plenty left—tend much to the promotion of good work. Suspicion is always a false and unremunerative quantity.

We should always conform to the possibilities and the limitations of the materials in which we work.

The many and diverse designs in an old German street were, no doubt, each planned to suit individual wants. Shakespeare knew what he was about when he called the architect a "plotter."

Things seen can usually take care of themselves, while things that are buried cannot even crave our attention till trouble comes. The reverent removal of our dead is often made well-nigh impossible for want of a little forethought over our plan. The injudicious placing of doors and windows frequently renders a comfortable fireplace an unattainable pleasure in many a well-intentioned plan. A staircase is often made inconvenient, and sometimes even dangerous for all time, by the attempt to save two or three additional steps: the false economy of "winders" with regard to carpets and coverings is well known. The ingle-nook is a useful, and may be a beautiful, feature when large and deep enough to hold at least four people comfortably; but, like the vane that does not indicate the path of the wind, is "a vain thing" when, as neither a cosy nor a useful nook, it is found to be a mere toy.

Aspect is more important than prospect, if it be impossible to secure both. You *may* go out and

enjoy your view, if any, but you *cannot* shift your house from a cold quarter when the view is only obtainable from a window situated in the teeth of a bitter wind or a driving rain.

If low rooms are preferred—and they may be excellent—see that the ample area of them makes such amends that inmates are not deprived of their due in breathing space. Great or small, a house should be as good as possible for the means at command. Whether the plan be based on the symmetry of the scales or the irregularity of the steel-yard, balance must be a factor never to be lost sight of if it is to be a success: the axial line is very important.

We are all “creatures of change,” therefore some change in the outlook of our living-rooms is a necessity. It is well that the south terrace should be as long and as unbroken as may be, for a promenade in winter; the summer may take care of itself. Some building (*e.g.* a summer-house) is a good method of ending the terrace-wall eastwardly, thus preventing the terrace from being swept by the east wind.

Cupboards (recently made almost an immortal subject in an amusing article) are, in my opinion, best made movable.

Window seats or lockers, if dry inside, make a good store-place for wine or other things.

Too much care can hardly be given to the arrangement and design of fireplaces, or to the proper provision for housing curtains and window blinds. Larders should be plotted on a cool side of the house, with a north or east aspect; they should, for obvious reasons, have no connection whatever with the scullery.

Hollow walls are less in favour than formerly; fairly thick ones, if dry, are, I think, better.

Terra-cotta is decorated brickwork, not sham stone, and should be so treated; it is hardly in vogue just now.

Brick soft-water tanks underground should be circular on plan and domed at bottom, to resist earth pressure.

Beams, if of fir, should be laid upon lead seatings, but if of oak should have no direct contact with lead.

Slightly rounded plaster corners are best to avoid damage.

Radiators in halls and passages make for comfort: they should be kept clear of the gangway.

All porches and passages should be well trapped against draughts.

Meals are not improved when prepared by a cook working in her own light.

The folding shelf in servery and other places is good in saving space when not in use. There is, perhaps, less liability of broken crockery when they are made to fold *upwards*.

The pantry sink should, as far as possible, be safeguarded from the breakage or damage to china, glass, and plate.

Safety-valves should be provided for boilers and hot cisterns when under pressure, but they require frequent attention.

The keeping of cisterns and pipes clear of water while the house is *empty*, wards off a big plumber's bill.

Larder and scullery windows should be ventilated *above* the ceiling line.

Condensation gutters are a good thing in all stone sills.

The pivot of hung casements should be well above the centre of each light when pivot-hung.

Keep framing and panels of all doors apart till the last moment.

Floor joists should be laid the short way of the room, and floor boards in narrow widths.

Lead safes are useful under baths, cisterns, and w.c.'s in the house. Hot-water pipes should, where possible, pass through the napery. Bath with plug is better than with plunger: make all pipes and cisterns easily accessible; arrows to show the direction of flow are frequently useful.

Wherever possible keep chimney-stalks clear of valleys; it is well to provide a damp course at the foot of all chimneys.

Slightly convex roofing tiles help much to make a dry roof.

Cut off discharge from sinks and bath wastes, and down pipes at their bases, and slightly raise inner edges of spouts next the house, and so prevent as far as may be the overflow from washing walls in a driving rain. Speaking æsthetically, a house without any eaves is like a human face without eyebrows.

A maltster's shovel is best for removing snow from lead flats.

For the sake of eyes and brains no bed should face a window.

If a plan fulfils its purpose it can hardly be too simple, or too direct: undue complexity may furnish picturesqueness, but does not increase utility, while it does increase cost. Where that is of no account, this principle may, of course, be modified.

Patent rights may restore to us the old condition of retaining our own drawings, we being vendors of services and not of pictures. They are evidences of the rights of the builder as well as of the client; therefore, as acting for both, the architect's office is the best place for their retention. When nearing the allotted span it is well to give to others anything that in the smallest way may assist them in avoiding those pitfalls that one has barely if at all escaped. We are all students—or should be—to the end of our working days, and, as our President so well said recently, we should not be unduly or unkindly critical over the failings of those perhaps less fortunate than ourselves.

As to *style*—though I have left this to the last I am by no means blind to its vast importance—it may, as a rule, be safely left to the architect, or to his client if a cultured person, or even to a combina-

tion of both. There are many to choose from—Gothic, Tudor, Elizabethan, Jacobean, English Renaissance, even Batty-Langley, or the painfully modern. François Premier may also be mentioned, inasmuch as, though free from classic *trammels*, it is refined by classic *feeling*.

What I have written claims little if anything by way of novelty and aspires to none. If of any value to anyone I am content.

had twice the life of the other. Such facts as these, though they may be fitting subjects for mirth among architects, can hardly be regarded so lightheartedly by their clients. I hope therefore that it is not asking too much to crave the patience of Mr. Woodward until we can produce some information which may possibly prove to be of value, even to an architect of his wide experience.—I am, Sir, yours,
ALAN E. MUNBY [A.]

THE WORK OF THE SCIENCE COMMITTEE AND THE ANNUAL REPORT.

To the Editor JOURNAL R.I.B.A.,—

SIR,—During the luminous and critical analysis of the Annual Report at the recent General Meeting, some comments were made upon the work of the Science Committee with reference to Paint Standards. As one who has taken the chair at the meetings of the sub-committee dealing with this matter I have been subjected to some friendly though adverse remarks for not having made any reply in order to voice the feelings of those who, like myself, were doubtless writhing under the vehement lashes of Mr. Woodward's oratory. As my silence was due to a misapprehension as to the intended comments of other speakers, may I venture to ask for space to explain briefly what Mr. Woodward was pleased to regard as the drollery of the Science Committee's action.

It will probably be a rude awakening to the critic of the Annual Report to learn that the persuasive admonition "prime and paint in four oils to approved tints—everything" terminating the mental gymnastics which must accompany even the loftiest design, really lacks the detailed precision characteristic of other parts of his specifications, and that the vehicles, thinners, bases, and pigments used in the trade of the painter vary considerably both in chemical and physical characters, and are open to much adulteration and misuse.

The Science Committee last year prepared, after some consultation and an effort to obtain external co-operation, certain definitions for paint materials, but further consideration of these proposals resulted in the opinion that it would be desirable to attempt some *résumé* of research which has already been undertaken before endeavouring to formulate the conditions for the best use of paints, and it would seem apparent to most thinking people that the formation of actual standards (where none exist) of the many materials employed, is not only a subject worthy of delegation to a sub-committee, but one which must involve a considerable expenditure of time and labour before any definitions can be wisely advocated. To cite but one example of variation with physical condition, it has recently been shown that in the case of two samples of paint, identical except as regards fineness of grinding, one

REVIEWS.

FEVER HOSPITALS.

The Planning of Fever Hospitals and Isolating and Quarantine Stations. By ALFRED C. FREEMAN, M.S.A., Author of "Planning of Towns, Buildings and Monuments," "Planning of Churches and Churches," &c. London. Price 7s. 6d. net. [The Sanitary Publications Co. Ltd., 5 Fetter Lane, E.C.]

The tenth annual report of the Local Government Board (1880-81) contained a lengthy and exhaustive report by Dr. Thorne Thorne on the use and influence of Hospitals for infectious diseases. At the date of this report there existed (as stated therein) means for the isolation of infectious diseases "of some sort or another" in the possession of 296 out of a total of 1593 Sanitary authorities in England and Wales, but such provision was in many instances only in name. In some districts the accommodation was only available for one or more of the infectious fevers, to the exclusion of the remainder, and in many cases the means of isolation, though professedly in readiness, had never been used at all. In all sixty-seven hospitals were visited by Dr. Thorne. Many of these had been hastily run up during panics caused by outbreaks of disease, without proper consideration as to either plan or construction, and only a few could be considered as good types of hospital design. This was the day of small things in such matters, and therefore when we take up Mr. Freeman's book on the Planning of Fever Hospitals, we can appreciate the great progress which has been made in this important department of hygiene in the course of some thirty years. The book is well illustrated by a large number of plans, with detailed descriptions, of modern Isolation or Fever Hospitals, ranging in size from those for a few beds to the large hospitals of the Metropolitan Asylums Board with about 500 beds each, and these plans may be considered as fairly typical of the modern Infectious Hospital, although some excellent and well known institutions are not represented.

Mr. Freeman is evidently quite at home with his subject, and takes us clearly and concisely through its history, beginning with the Sanitary Act of 1866, which first gave local authorities power to build or arrange for hospitals for infectious diseases, powers considerably increased by the Public Health Act 1875 and the Isolation Hospitals Act 1893, also powers for the prevention of epidemics, etc.,

of the Acts of 1883 and 1890, showing how, amongst other matters, the cost of the land, building, furnishing and maintenance, was to be defrayed by a local rate, while the cost of patients' expenses, such as conveying, removing, and feeding the patients, and providing medicines and disinfection, was to be defrayed by the patient, or in the case of a pauper, by the guardians of the Union from which he was sent. It is also explained that the Metropolitan Asylums Board occupies a different position from other Local Authorities, in that under the Public Health Act (London) 1891 the pauper character of their hospitals has been entirely removed, and the Board's hospitals are now free to all classes.

It is, fortunately, scarcely necessary nowadays to dwell on the importance of the provision of Isolation Hospitals, but apt illustrations of their usefulness are never out of place, and the author quotes from a paper read by Mr. T. C. Hurle, M.A., read before the Royal Sanitary Institute Congress at Bristol in 1906, giving an instance where the erection of a small Isolation Hospital in a rural district in North Somerset was instrumental in stamping out at least three separate introductions of smallpox. It is pointed out that the ratio of beds to population will vary. It is usually calculated at 10 per 10,000, but it is obvious that large towns require a larger proportion. London has about 20 beds per 10,000. No reference is made to the number of beds per acre which can be safely put upon a site. This depends upon a variety of circumstances, such as the nature of the site and its surroundings, and whether the pavilions are of one or two stories. It is a very serious error, however, to overcrowd a site.

When we come to the planning and general arrangement of Infectious Hospitals, we find Mr. Freeman dealing with the several points in considerable detail, displaying a good knowledge of his subject, and having evidently consulted authorities of practical experience. He points out as regards the site, that an infectious hospital (other than one for smallpox) erected with an adequate area involves no appreciable risk to the neighbourhood. Referring to separate receiving wards, which do not usually exist in small hospitals, he emphasises the importance of every patient, on admittance, being carefully examined, as a safeguard against errors of diagnosis on the part of the certifying practitioner. In connection with discharge wards it may be mentioned that the Metropolitan Asylums Board have adopted a new system as regards scarlet fever patients. These are now placed in the discharge ward and bathed there *the day before* they leave the hospital, instead of on the day of actual discharge, thus spending their last 24 hours in a non-infected area.

The several departments forming the administrative buildings are fully dealt with, due discrimination being made between the requirements of large and small hospitals. There is a tendency for the administrative portions of any hospital, large or small, infectious or general, to assume dimensions

somewhat out of proportion to the patients' departments, and this is a growing tendency which should be resisted by architects, when possible. Good details are given of the fitting up of the kitchen and laundry. We do not approve of the suggestion that fireplaces should be omitted in the nurses' single bedrooms, and hot water pipes substituted, even with suitable means of ventilation. It is true that these fireplaces are rarely used, but they certainly act as ventilators. In a nurses' home, if during the winter the corridors and staircases are kept well warmed, the bedrooms will never be unduly cold.

Dealing with the ward pavilions, the author advocates, for scarlet fever, the provision of separate wards for acute and convalescent cases. This would, in most instances, increase the number of wards, with a corresponding increase in the number of ward adjuncts (which are costly), and an increase in the number of nurses. Nor do we agree with his suggestion that the cubic space per bed for enteric and diphtheria cases should be increased from 2000 feet to 2500 feet. This was done, it is true, in the three large hospitals erected by the Metropolitan Asylums Board in 1895-7, but it has not been repeated in their later hospitals. There would appear to be a considerable increase in the cost of building without any compensating advantages. A ward with 2000 cubic feet per bed can be as well ventilated as one with 2500 cubic feet. The author gives the usual width of a ward as 26 feet, but remarks that some authorities prefer 28 feet. There is a good deal to be said in favour of the increased width, especially in the case of large wards. If the cubic space of 2000 feet is adhered to with a height of 13 feet, the linear wall space will be 11 feet instead of 12 feet, thus reducing the length of the ward. The increased width also gives more working room in the centre of the ward, and around the central fireplaces. The internal details of the wards and ward adjuncts are gone into very minutely. The author is apparently inclined to favour as a ward floor, one of the numerous jointless floors now on the market, in preference to teak or terrazzo. We think that no floor is suitable for an infectious ward except one with a surface of such hardness as to be capable of taking a high polish. No other floor is sufficiently impervious.

A separate chapter is devoted to the work of the Metropolitan Asylums Board, and some very interesting particulars are given, from which it appears that the Board has ten acute fever hospitals, three hospitals for small-pox, and three convalescent hospitals, providing a total of over 9400 beds, which will afford some idea as to how well London is protected against epidemics of infectious diseases. It would have been as well if, in this chapter, an account had been given of this Board's extensive and complete ambulance service and stations, as they are an essential part of the Board's protective or preventive system, as illustrated during

the small-pox epidemic of 1901-2, which was arrested, not so much by vaccination, as by the immediate removal and isolation of cases rendered possible by this ambulance service. An interesting reference is made to the new isolation cubicles at the South Western Hospital. Two large wards, originally having 18 beds each, were converted into cubicles with glazed partitions 7 feet high, of fire-resisting construction, with dwarf doors. These are used for the temporary isolation of doubtful cases, and have been found to answer very satisfactorily.

On the subject of so-called temporary hospitals, particulars are given of several new types of light wall construction, in substitution for the old system of timber and corrugated iron which was found to be dangerously inflammable. It should be noted, although not mentioned by the author, that most building by-laws of local authorities exempt temporary infectious hospitals from the rules as to brick walls, so that other and lighter forms of construction are possible.

Curiously enough the author makes practically no reference to three important questions, viz. the ventilation of the wards: the question as to one or two storied pavilions; and the question as to whether the pavilions should, or not, be connected by covered ways. Perhaps as these are all controversial matters, he was wise.

The latter portion of the book is devoted to disinfecting and cleansing stations, with descriptions and plans of the same and also of various disinfecting apparatus.

On the whole this book is an eminently practical one, replete with accurate and valuable information, and it should be most useful in the hands of all who are interested in the provision of arrangements for coping with infectious diseases and epidemics. It should be noted that of the thirty-one institutions illustrated in this book, seventeen are from the designs of Borough Engineers or Surveyors, which makes good reading for practising Architects!

THOS. W. ALDWICKLE [F.].

MINUTES. XVI.

SPECIAL GENERAL MEETING (BY-LAWS), 14TH JUNE 1909.

At an Adjourned Special General Meeting for the consideration of the Draft By-laws under the new Supplemental Charter, held Monday, 14th June, 1909, at 8 p.m.—Present, Mr. James S. Gibson, *Vice-President*, in the Chair: 35 Fellows (including 9 members of the Council) and 22 Associates, the Minutes of the Special General Meeting held Monday, 24th May [*ante*, p. 562], were taken as read and signed as correct.

By-laws 28, 29, and 30 being put separately from the Chair and voted upon, it was

RESOLVED, That Nos. 28, 29, and 30 be approved as presented in the Draft, and adopted.

No. 31 being put from the Chair, Mr. C. H. Brodie [F.] moved as an amendment, and Mr. Maurice B. Adams [F.] seconded, that the following provision be added to the By-

law, viz. "but no Member or Associate Member of Council who has filled the office for six successive years shall be eligible for re-election as a member of the Council until the expiration of two years from the termination of his tenure of office."

Mr. W. Henry White [F.] moved as an amendment, and Mr. Percy B. Tubbs [F.] seconded, that one-sixth of the Ordinary Members and Associate Members of the Council shall retire each year, and shall not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of equality of seniority the rotation to be decided by lot.

Mr. Brodie being understood to waive his amendment in favour of Mr. White's, the latter was voted upon by show of hands and declared carried by a two-thirds majority as required under By-law 62—the numbers being 16 in favour of the amendment, 8 against.

The amendment as carried becoming the substantive motion, an amendment to it, moved by Mr. J. Douglass Mathews [F.] and seconded by Mr. Arthur Crow [F.], that the words "and shall not be eligible for re-election for two years" be omitted from the motion, was voted upon and rejected.

The substantive motion being put to the vote, it was

RESOLVED (by 18 votes to 9), That one-sixth of the Ordinary Members and Associate Members of the Council shall retire each year and shall not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of equality of seniority the rotation to be decided by lot.

Mr. Arthur Crow gave notice that, in view of the small proportion of Fellows voting upon the question just submitted, he should take the requisite steps to have a poll taken by voting papers of the whole body of Fellows.

On the motion of Mr. Max. Clarke [F.] the meeting adjourned, and the Chairman announced that the adjourned meeting would be held Wednesday, 23rd June, at 5.30.

The Meeting separated at 10 p.m.

SPECIAL GENERAL MEETING (PREMISES) 23RD JUNE 1909.

At a Special General Meeting, summoned by the Council under Clause 22 of the Charter and By-law 60, held Wednesday, 23rd June 1909, at 8 p.m.—Present, Mr. Leonard Stokes, *Vice-President*, in the Chair, 31 Fellows (including 5 members of the Council) and 11 Associates:—

The notice convening the Meeting having been read, the Chairman brought forward and formally moved the adoption of the Council's proposal to purchase on behalf of the Institute the leasehold interest in parts of Nos. 9 and 11 Conduit Street and No. 23A Maddox Street, adjoining those at present occupied by the Institute, and to raise out of the funds of the Institute the moneys required for carrying out and completing the said purchase and making the necessary alterations to the premises and paying the costs of the purchase.

The motion having been seconded by Mr. J. S. Gibson, *Vice-President*, the matter was discussed, and the Meeting

RESOLVED, unanimously, That the Council be authorised to enter into a contract on behalf of the Institute, in a form to be approved by the Solicitor of the Institute, for the purchase by the Institute of the leasehold interest of Messrs. Knight, Frank & Rutley in parts of Nos. 9 and 11 Conduit Street and No. 23A Maddox Street, at a price not exceeding £10,000, and to carry out and complete the purchase; and that the Council be authorised to raise out of the funds of the Institute such sum not exceeding £10,000 as may be required for the purchase of the said leasehold interest.

This concluded the business for which the Meeting had been called.



BROGGIANO'S BUZZ OF BRUNELLESCHI.

PHILIPPO BRUNELLESCHI, AND HIS MARK ON FLORENCE

By PERCY S. WORTHINGTON, M.A. Oxon. [F.].

IT is, I think, hardly necessary to apologise to any gathering of architects for asking them to give a short time to the consideration of the life and work of so interesting a personality and so great a revolutionary in the world of art as Filippo Brunelleschi, though so little is known of his life apart from his work, and so little of his work was completed during his life. But there may be some to whom, as it is to me, it will not be unprofitable to recapitulate what we know of the man and the mark that he left on his native city, of the surroundings in which and the means by which he worked, of the wit by which he made his position and carried his schemes, and of the debt which Florence acknowledged when he died. And the debt belongs not only to Florence, but to the whole of Europe and to us to-day, for he stands almost alone in architectural history as an individual to whom an epoch-making change may be immediately traced as opposed to the slow and collective evolution of human endeavour.

Brunelleschi forced himself upon Florence, and, single-handed, fought the bodies in whom tradition vested all building knowledge. Buschetto, Salvi, John of Pisa, such men are known by their work in their native city: and in Florence his predecessors, Arnolphi di Cambio and Giotto, are immortal: but none of them did more than design and direct under the tutelage of the guilds who carried out their buildings upon well-recognised lines. Brunelleschi freed himself from these fetters both in the design and construction of his buildings, compelled a complete reversal of previous practice, and established himself in the position and authority of a modern architect.

How far this has in the event become favourable or prejudicial to art in general need not concern us at the moment, but our sympathies must be all on the side of Brunelleschi, in spite of his sweeping denunciation of much that we reverence in common with much that appeals as

little to us as it did to him, for we can hardly imagine that one of his temperament could have included in his condemnation such a tower as that of Giotto; but the Italians, pagan at heart even to-day, entirely missed the spirit of the style that flourished North of the Alps, and under the influence of Brunelleschi the people seemed to wake from a long sleep and resume the thread of a long-forgotten history. Thus a hundred years at least before the change of thought came to the builders of other countries, Brunelleschi returned to classic art, and his work is the more marvellous in that there was no hesitancy, no preliminary stage, but that his style was from the first fully developed, fresh and original in treatment, and full of intense life and suggestiveness.

It is to this that the great interest in our architect is due. Born in 1375 he lived until 1444 or 1446, and was therefore working in the new style while such buildings as the towers of York and the choir of Rheims were being constructed in northern Europe: in the year of the completion of Milan Cathedral he set about making his model for the dome, and it is probable that in this year also he designed San Lorenzo.

We know comparatively little of his life, but the outstanding facts are as follow. He was of the family of the Lupi, and his father a notary who was anxious that his son should follow his own profession. After a few years of useless struggle, Filippo obtained his wish, and entered on a career of art in the usual way by being apprenticed to a goldsmith, and later he graduated in the Goldsmiths' Guild. He seems to have grown up very small and apparently ugly, extremely self-reliant, an excellent judge of character, and a staunch friend and as staunch an enemy, keeping his object always clearly in view, and working towards it with a determination and obstinacy that usually bore down all opposition, but in case of opposition or of failure in attaining his end he was hasty, hot-tempered, and passionate to the extent of violence. He was sensitive and took himself very seriously, and would not only have his own way but refused also to share work with another where it meant dividing its honour and emoluments. "There is something rudimentary and childlike in very gifted men: a lack of patience that makes the long way of thought intolerably irksome, and drives the man of genius to the accomplishment of the apparently impossible by the shortest road." This might have been written of Brunelleschi himself, quite as well as of the ancient Greek character, and of all towns in history the Florence of the *quattrocento* comes nearer to the Athens of Pericles than does any other. All through the preliminary struggle, intrigue, and debate that preceded Filippo's appointment first as joint and finally as sole architect of the dome, all through the interminable wrangle as to possibilities and methods, we see how irksome it all was to him, how he hated the constant and reiterated discussion, and how he regarded as idiots—and told them so—those who would not at once concede to him all he wanted and recognise him as infallible. Seeing that a work was to be undertaken such as the memory of man ran not to, it was hardly strange that it should all have to be gone through, and that men who in their own conceit knew all that was to be known in the matter of building, should have made it as difficult as they could for the upstart who took no pains to conceal his contempt for them. Cannot we imagine the attitude of a modern committee under these circumstances?

Donatello was his fellow-student and early and almost lifelong friend and helper; and Lorenzo Ghiberti also his fellow-student but lifelong competitor and enemy. The friendly competition with the former in sculpturing Christ on the Cross did not disturb their friendship because Brunelleschi got the better in it, and they remained intimate friends until Donatello took unwarranted liberty with one of the architect's buildings. With Ghiberti, however, it was different. Their rivalry was of a more serious nature, affecting honour and prospects. Brunelleschi's pride was touched when he was told that he must share the work and glory of the baptistery gates with his rival; he indignantly threw up his share of the work with bitter com-

plaint of injustice, and, determining to give himself to an art in which he thought that Ghiberti could not disturb him, went off to Rome, and continued his measurements and studies there off and on for some years. Even so he could not shake off Ghiberti, who, as we know, was to be his *hôte noir* during the great work of his life. I know that Vasari gives a different and more flattering account of the episode, but his version hardly falls in with Brunelleschi's character.

Brunelleschi's competitive design for the baptistery panel is so characteristic, and we have so little of his sculpture left, that it is worth while perhaps to look at it carefully and compare it with Ghiberti's, which is undoubtedly, I think, the better. The two models hang side by side in the Bargello. Brunelleschi's is full of the fiery energy that carried him roughshod over others. The angel rushes down from heaven: Abraham's act seems not one of reluctant obedience and piety, but rather one of bloody revenge. No part of the scene is realised without violent or absorbing action. One attendant, careless of the tragedy that is being enacted above, is straining to extract a thorn from his foot; the other, dressed as a Roman soldier, busies himself with his greaves. The ass walks determinedly across the panel, tearing up the grass as though he had not fed for a month; the ram scratches his ear, and Abraham's robe blows in the wind. And yet the action is all finely portrayed and the whole wonderfully modelled.

None of this impetuous restlessness is visible in Lorenzo's work, which technically seems to me inferior, if anything, to that of Brunelleschi, and the bottom of the panel to be less happily filled. But more of the feeling informs it that made Greek sculpture so convincing—the feeling that a great and inevitable scene is being enacted which concerns the whole of mankind as much as the individual actors. The composition has, too, on the whole, more unity and beauty of grouping, forming one concentrated drama, instead of being violently cut in two by a horizontal line. If it were Brunelleschi's intention to emphasise the terrible contrast between the principal act and the heedlessness of others, his panel is a masterpiece in intention and in artistic expression, but as a work of sculpture surely Lorenzo's model has the finer spirit.

I lay stress upon this because we see the character of the man so clearly in his work, and also because failure drove sculpture from the field of his activities. Further, the influence of classical art, so evident here, led him to the study of Roman architecture, although, as we shall see, he retained an independence and freedom of mind which forbade him to become in any sense a copyist, and suggested even a combination of classical with mediæval forms, as in the domes of Santa Maria del Fiore, and the Pazzi chapel, or in the plans of San Lorenzo and Santo Spirito.

The goldsmith's bottega was again his starting point and means of livelihood in Rome, while his spare time was indefatigably spent in studying classical style, methods, and materials, and especially the construction of domes. After two or three years he returned to Florence, and in 1404 became a member of the Guild of the Arte degli Orefici. Whether he went back to Rome then is not known for certain, but in this same year he was selected on a special council for furthering the work on the Church of Santa Reparata, as it was then called, only to be removed in the following year, probably for non-attendance caused by a further pilgrimage to Rome in order to consolidate his knowledge in view of the work to be undertaken in covering the space left by Arnolfo, which work he was determined to do.

We have isolated events in his life. On the one hand we have his failure to induce Cosimo dei Medici to build the ideal palace that he had designed, and on the other his success with Luca Pitti. We have a practical joke and some picturesque incidents which may or may not be true, but his life to all intents and purposes is made up of years of industrious work designing buildings for eminent citizens which he did not live to see completed, and some of

which were tampered with in the carrying out under the direction of others. But, after all, his life story as an architect is identical with that of the dome of the Duomo, beginning with his first appearance upon the scene as a self-constituted authority, his gradual recognition and appointment as joint architect, his irritation with Lorenzo Ghiberti, his crafty retirement to bed and the consequent exposure of his colleague's incompetence, his final and victorious completion of the dome itself, and his death after settling the model of the lantern which he



BRUNELLESCHI'S MODEL FOR A PANEL OF THE BAPTISTERY GATES.

never saw finished, while the design for the external gallery round the foot of the dome has been totally lost.

Now a word or two about the city and the time in which he worked. Democratic government had come to an end in Florence. During his active career the city had settled down to solid prosperity, artistic life went on undisturbed by faction, and Brunelleschi, in common with other artists, seems, as far as we know, to have ignored politics. As a boy he had seen the great struggle between the populace and the Greater Guilds which held the political power of the time. The former demanded and obtained recognition for their own minor guilds, and for a while took city government into their hands. But by the time that he was seven or eight years old the Greater Guilds had practically destroyed the power of the lesser, and

then began the rule of the Ottimati, who as the aristocracy of wealth and as members of one guild or another, directed the affairs of the community. Mercenary wars were carried on, usually to the benefit of the city, fresh territory was constantly gained and commerce flourished, and, behind all, was a family foremost among the Ottimati that was gradually securing its influence and position at home and abroad, and quietly directing events in the background until Cosimo dei Medici was prince in all but name, *pater patriae*, and the centre round which



GHIBERTI'S MODEL FOR A PANEL OF THE BAPTISTERY GATES.

all the political, commercial, and artistic life of the city gathered. Genius from every quarter crowded to Florence: the Neo-Platonic Academy was founded, and in architecture the lines of development of the Quattrocento were an exact reversal of those of the Middle Ages. Of architects and sculptors—men were both in those days, and to this fact is due the wonderful beauty of much of the detail—Giotto had died forty years before Brunelleschi's birth, Andrea Pisano about thirty, Andrea Orcagna but seven years. It is wonderful to think that Or San Michele was only being finished when Brunelleschi was between twenty-five and thirty, and very shortly before he designed the Segrestia Vecchia at San Lorenzo: and Or San Michele, together with the Bigallo and other such buildings, represents the sort of work which immediately preceded his own, though it must be remembered that just as Brunelleschi never

discarded Gothic tendencies altogether, so the Italian Gothic builders had always harped upon classic strings.

Santa Croce was still in course of erection during his life, and Santa Maria Novella was only finished a very few years before his birth, and is still without its west facade. Among his contemporaries were Jacopo della Quercia, Lorenzo Ghiberti, Donatello, Michelozzo, Luca della Robbia, Bernardo Rossellino, Desiderio da Settignano, Luca being about twenty years his junior, and the last two being mere lads at the time of his death, but old enough to model for him.

Of painters, Masolino, Massaccio, Fra Angelico were strictly his contemporaries in work, and younger men with whom he must also have been intimate and frequently met at Cosimo's palace, which some say he did build after all, were Fra Filippo Lippi and Benozzo Gozzoli. Another friend must have been Antonio Manetti, who wrote his memoirs, who made his model for the lantern of the dome, and succeeded him after Michelozzo's term as architect for the Duomo and also in the direction of the works at San Lorenzo. He is shown, together with Brunelleschi and Donatello, in a picture at the Louvre by Uccello, a contemporary painter.

Now a few words should perhaps be said of the organisations with which Brunelleschi came into contact. The guilds in Florence originated in combinations of workers as opposed to the Societies of the Towers formed by the nobles for their own defence. The seven greater arts were organised and their government established in 1266. They were the celebrated Arte della Lana, or wool-dressers; the Calimala, or dressers of foreign cloth; the judges and notaries, the moneychangers, the physicians and apothecaries, the silk merchants and the furriers. You notice that there is no building guild: this came later among the minor arts and was called the Arte dei Maestri di Pietra e Legname, which had under its charge all the building done in the city, under the patronage of the Arte della Lana, which was in this way specially responsible for the building at the cathedral.

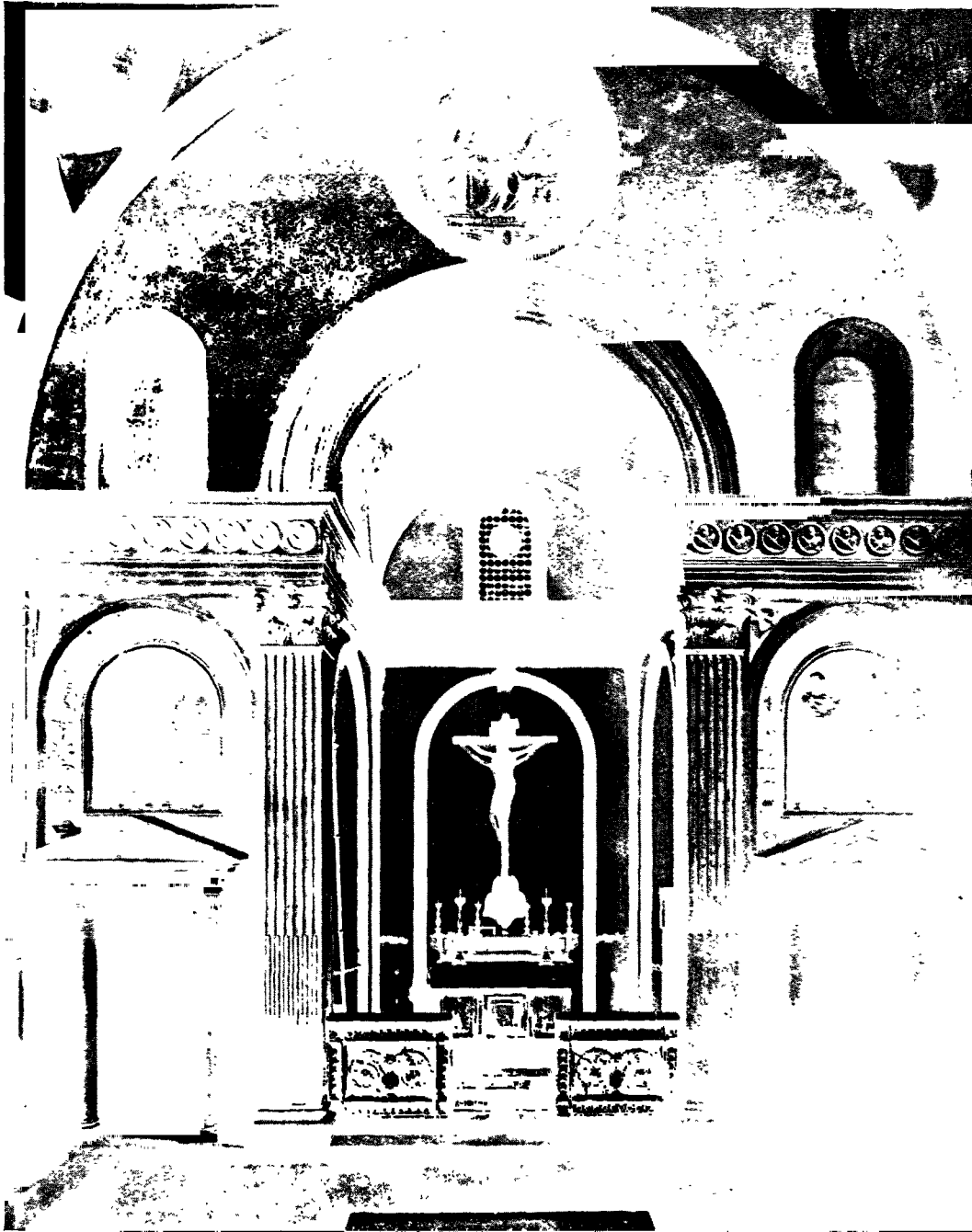
The greater arts came with the beginning of republican government, which was entirely in their hands twenty-four years later, and the Republic became one of merchants who carried on wholesale export and import, and nobles and others were in 1295 freed from their disabilities and were allowed to matriculate in one or other of the guilds. Or San Michele is the monument of the greater guilds and the more important of the lesser. In 1293 the fourteen minor arts were established, among them our building guild. The guild had a niche in Or San Michele, below which is the beautiful workshop bas-relief; it was the strongest branch of the Lombard Guild and enjoyed considerable independence.

Brunelleschi never became a member of this guild, preferring to belong to one of the others and keep himself independent of the men whom he was to *employ*. The position was new, indeed there was great bitterness in the guild against it, and the guild caught and imprisoned the man who dared to undertake work on the Duomo without having paid matriculation fee and subscription, and to *direct* their members, who had hitherto regarded themselves as the only authorities on building. However, their opponent was too strong for them and their traditions, and it was a very cruel blow to their prestige when Brunelleschi brought in Lombards in the place of the Florentines who struck work on the dome. Nor was their pride restored when he graciously allowed them to return to work later on his own terms.

We have two principal bodies mentioned from time to time with whom Brunelleschi had connection during the building of the dome. First there are the Maestri or masters, who met at the Opera del Duomo and carried out the work on the cathedral. These were the members of the guild. Secondly there are the Operai or Signori Operai. This was a sort of committee of the Arte della Lana, forming an administrative and financial body for the carrying on of the work and representing the control of the Florentine citizens. They attended

the meetings at the Opera del Duomo and sanctioned the proposals of the maestri who advised them from the practical point of view, until of course Brunelleschi came and upset all their calculations.

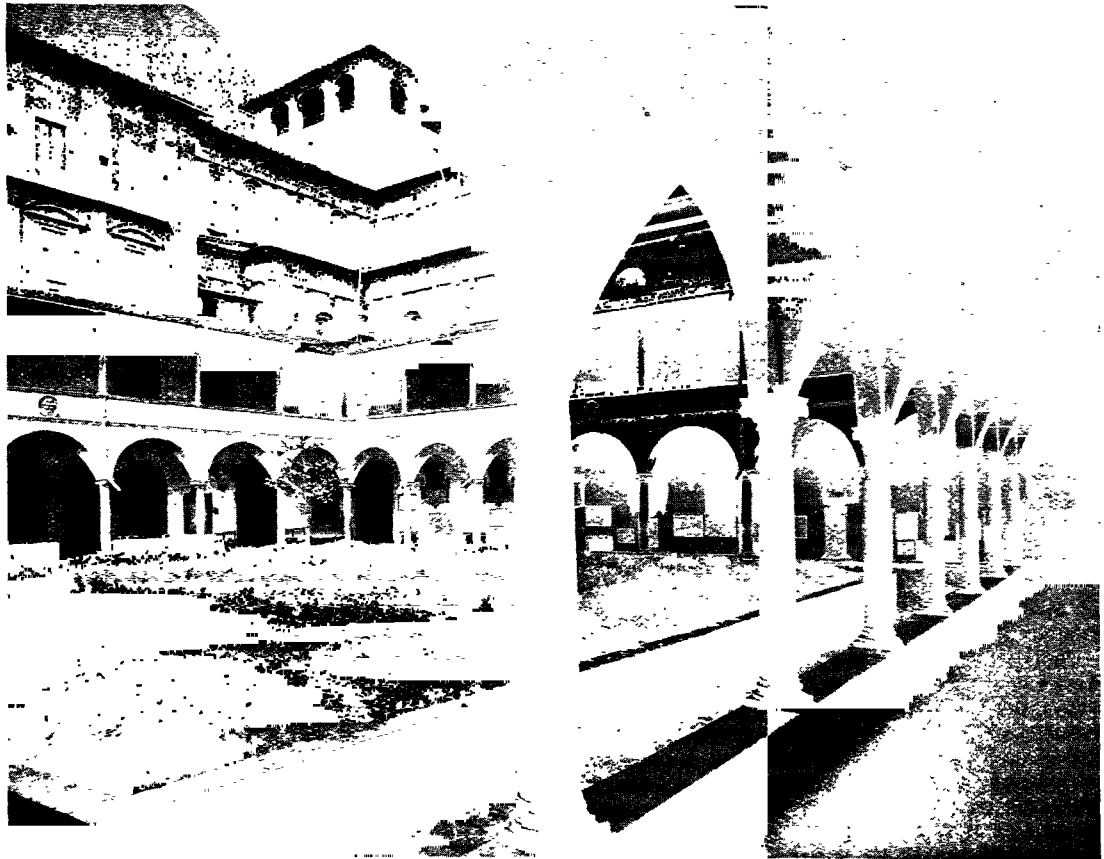
Now let us turn to the consideration of the buildings for which we are indebted to the first great master of Renaissance architecture. To begin with, it is necessary to remember



—SAGRESTIA VECCHIA : SAN LORENZO.

that the San Lorenzo Segrestia Vecchia and the Pazzi chapel were the only two buildings completed during his life, that at his death the dome still wanted its lantern, and the Foundling and the Pitti were only finished in part. There is doubt whether he ever saw the Quaratesi Palace began, and the large majority of his work was carried out from his designs—often made years before—after his death. And yet in all the buildings ascribed to him there is a distinction and originality of treatment which set him apart as a great designer, just as the dome marks him out as a constructional genius.

We must remember that Brunelleschi was a great deal away from Florence, and that



SAN LORENZO : CLOISTERS.

during his absence the work was conducted by others, so that while the general design is his the detail may often be the interpretation of his intention by another. Sometimes he must have been less fortunate than at others. For instance, we are told that in the case of the Foundling Hospital his pupil, Francesco della Luna, made havoc by altering the wall surfaces and running architrave mouldings wrongly, and his extreme anger is chronicled. This incident shows that he kept a hold on things, and that if he did not trouble himself with all the detail, it had to satisfy an exacting critic. One notices a certain inclination to repeat detail that had proved satisfactory, and there is no doubt that, having found congenial helpers in Donatello and, later, Desiderio da Settignano, he left a great deal to them, and decoration became a matter, so to speak, of receipt and numbered details.

The old church of San Lorenzo was being rebuilt about the year 1418 in what promised to be an unsatisfactory manner, and Giovanni di Bacci dei Medici interested himself with seven other families in getting a design from Brunelleschi. The design was made and the architect saw the sacristy—known as the Segrestia Vecchia—completed; the remainder being carried out after his death by Manetti and Donatello, who left the main front unfinished. For this Michelangelo prepared a scheme, which, however, was never carried out.

In plan and design the church is basilican, the crossing roofed with a dome on pendentives, the nave with a flat wooden coffered ceiling, the aisles with domical vaulting, and the chapels with barrel vaults. The general effect of proportion and lighting is fine, the nave arcade especially being of effective proportions and beautiful workmanship. Its treatment is of late Roman character, with entablature blocks between the capital and the springing, and the archivolt moulding and soffite correspond closely with the detail of the Pazzi chapel, while Donatello's cherub heads fill the friezes of the blocks. The piers at the four corners of the crossing rise above the springing of the arcade to carry the arches under the dome, and correspond with Gothic piers in such a position. The entablature



SAN LORENZO. NAVE ARCADE.

treatment of the arcade is not altogether satisfactory in proportion, and the projection of the cornice is very great, while in the aisles the entablature which runs straight through and cuts off the pilaster from the vault rib is not good from either a constructional or an artistic point of view. But that it was Brunelleschi's intention and not Manetti's alteration, as has been, I believe, suggested, we may gather from the internal treatment of the Pazzi chapel, and also of the Segrestia Vecchia. This sacristy is quite a gem and a very typical and dignified example of the square plan roofed with a dome. The spaces between the wall pilasters are arched to the height of the entablature—a happier and more constructional treatment than that adopted in the Pazzi chapel. The entablature is well proportioned, and decorated with Donatello's angels as in

the nave and again at the Pazzi portico, the idea of which may have been derived from the mosaic frieze in the baptistery, and, as at the Pazzi and in the aisles of the church, the entablature runs straight through without a break, even over external angle pilasters that carry the archivolts. Donatello's roundels are very beautiful, illustrating the particular fondness shown by Brunelleschi for circle touching circle, which we constantly see in his treatment of spandrels and pendentives. The two doors right and left of the small chancel are a standing blot on the memory of Donatello. In themselves they are not happy, but when one realises that without saying anything to his friend he not only accepted the commission for the doors, but also took upon himself to design and erect the order that surrounds them, one can understand and sympathise with Brunelleschi's wrath and his quarrel with the sculptor.

From San Lorenzo let us cross the town to the Piazza Santa Croce and enter the smaller cloister to the right-hand side of the church. Facing you as you enter you have the little building which is probably the earliest ecclesiastical building in the Renaissance style. It is dated about 1420, and took the place of a pre-existing chapter-house. It was built by three brothers Pazzi and was finished about 1450. The building has, it seems to me, been taken too seriously by some critics. For me personally it has a charm which no apparent constructional weaknesses or solecisms can destroy. No doubt these are there, and no doubt also they cannot be glossed over or dismissed from the mind in forming judgment: and yet the defects are masked with extraordinary skill, and the detail is a mixture of wonderful beauty and delicacy with a certain crudeness which is unexpected under the same hand: more particularly so, since the treatment of the acanthus leaf in the capitals, wherein a decided coarseness is displayed, is what one might have expected Brunelleschi, just returned from classical study, to supervise most carefully. They may illustrate the difficulty which he probably had in dealing with craftsmen brought up to Lombard traditions and the use of the drill.

Of course the points most freely criticised are the treatment of the arcade as abutment to the transverse ribs and vaults and to the dome of the loggia, and the non-completion of the archivolt over the central arch which is cut off by the attic pilasters. Internally criticism is made of the dome, which is indeed curious, and done with ribs as in a mediæval vault, the abutment being obtained apparently by weighting the haunches inside the external attic or drum, and not on the logical mediæval system, though on one common among Lombard builders. Exception is also taken to the flat, purely ornamental pilasters without any pretence to functional use, and to the architrave and cornice running continuously round and cutting the arch archivolts.

I grant you that to purists these must seem unpardonable faults, but I should like to see any one of them break the proprieties with such a charming grace. By all the rules this revolutionary should have given us a correct essay in his revived classical style: but his mind was not made that way. He was always doing things differently from everyone else, and if this building is not correct it is instinct with a feeling of new-found power. It has the charm of an amateur's work in its freshness and freedom from the trammels of convention, but it is not the work of an amateur. The touch is too sure for that, and if, as I grant you, there is an appearance of constructional weakness, the knowledge that it has stood for nearly five hundred years relieves our anxiety and enables us to revel in its real beauty. One is sorry for the decorative detail of the interior and cannot confess to admiration of it, but it does not destroy pleasure in the proportions and composition and quiet dignity of the interior as a whole, though it is not nearly so satisfactory as that of the Segrestia Vecchia of San Lorenzo.

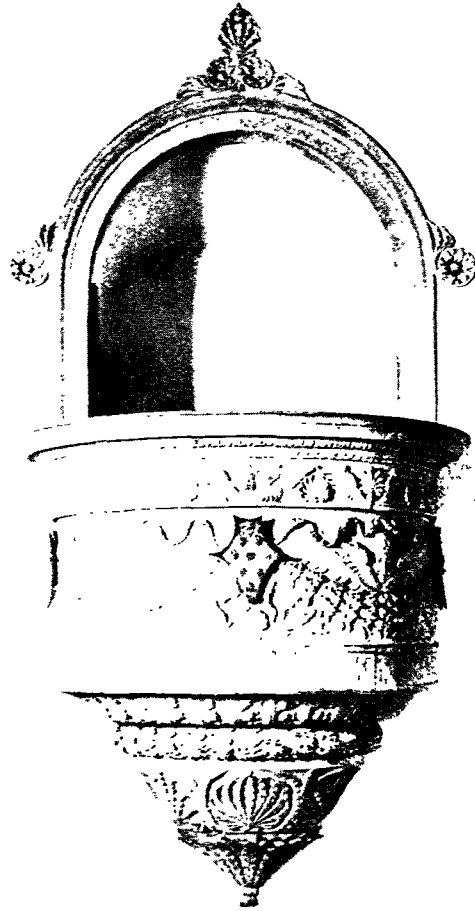
For the freshness and general conception of the facade, the proportions and light and shade of the portico and loggia above it, and the contrast of the broad shadows with the delicately modelled and divided surfaces of the attic, there can, I think, be hardly too much

praise, and there is a charm, too, in the *négligé* way in which the building seems thrown in among its surroundings as a sort of challenge, as if the designer had thrown down his gauntlet expressing contempt for them and secretly hoping to rebuild them to his own satisfaction, so carelessly and, apparently, so temporarily are the connections made on either side.

Next to the Pazzi chapel the Badia at Fiesole strikes me as being the most charming of the smaller works. It was nearly twenty years after Brunelleschi's death—in 1462—that the monastery was finished, designed though it had been for Cosimo dei Medici, who wished, for political purposes, to be on friendly terms with the Augustinian friars. It bears so completely the impress of the designer's mind, and the detail, carried out by Desiderio, is so much what we are accustomed to associate with him, that we may take it as a very typical example. It shows all the freshness, interest, originality, and refinement of the Pazzi chapel, without the constructional defects, and has a more satisfactory internal treatment. It consists of the simplest elements, which are combined with rare skill and certainty, and the church is impressive, and the grouping of its parts and their relation to one another are wonderfully effective. Here also we see the architect's assimilative power. It seems that much is due to Gothic feeling and Lombardic tradition, especially the door and windows in the cloister, and yet the spirit is that of the Renaissance. How far the detailed ornament is due to him or Desiderio is difficult to say, but the sculptor had worked sufficiently for him to become imbued with his spirit.

The front of the church was never finished, but the architect retained the existing part of the original façade, which bears a strong resemblance to that of San Miniato. The details of the caps, some purely classical, others with a new feeling in them, have more vigour than refinement, and the foliage is clumsy and wanting in modelling; but the brackets of the outer loggia are wonderfully beautiful and constructive, reminding one somewhat of the strengthening pieces under the kingposts of the earlier roofs. The carving on the jambs of the doors and windows and on the refectory pulpit is beautifully modelled and worked, and the surface and relief values and the disposition of the ornament are beyond criticism.

The plan of the church is a plain parallelogram, enclosing nave, side chapels, transepts, and crossing, to which is added chancel, sacristies, &c. The crossing is a square of about twenty-eight feet (the same width as the nave) covered by a dome without any drum or pendentives, and cut by the arches that carry it—a domical vault, similar to the aisles of San Lorenzo. On either side of it is a transept, shallow and barrel-vaulted, of the same depth as the side chapels, which are roofed with domical vaults. The chapels are two steps, the crossing and transepts five steps, and the chancel seven steps above the nave level. Both



FIESOLE: PULPIT IN THE BADIA.

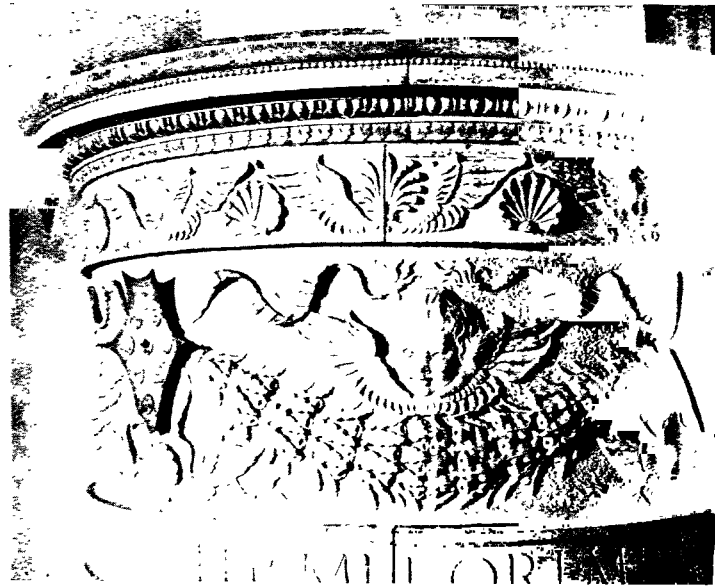


FIGURE: DETAIL OF CAPITAL IN THE PAGODA

nave and chancel are barrel-vaulted, the former about sixty-three feet and the latter about fifty-one feet long and twenty-eight feet wide.

There is little attempt at decoration, but how well it tells : just the pillars and arches under

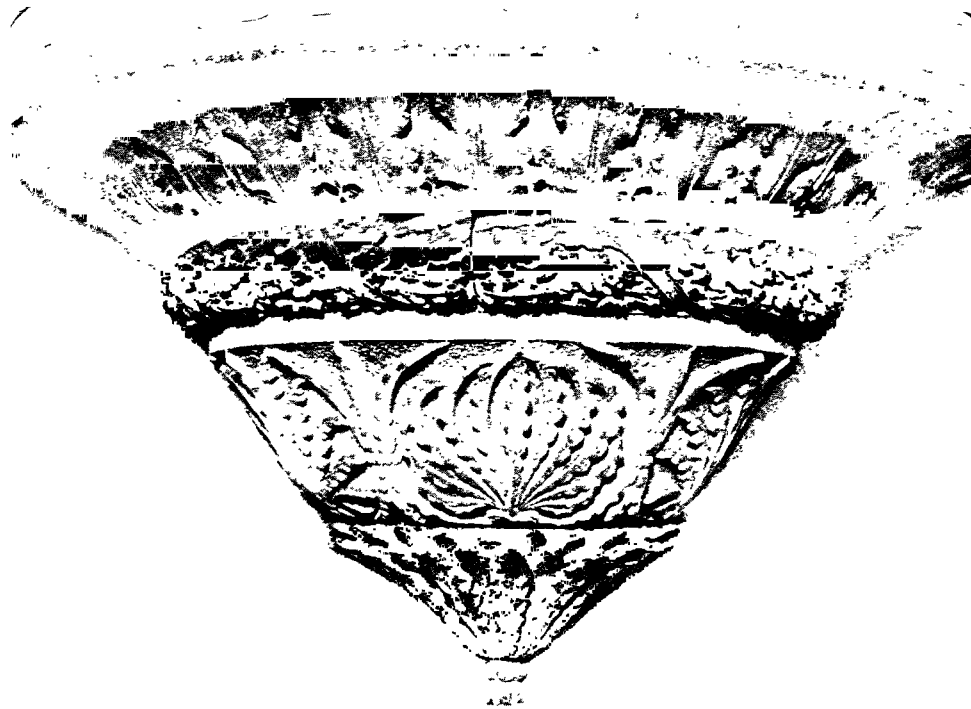


FIGURE: DETAIL OF LOWER PART OF CAPITAL IN THE PAGODA

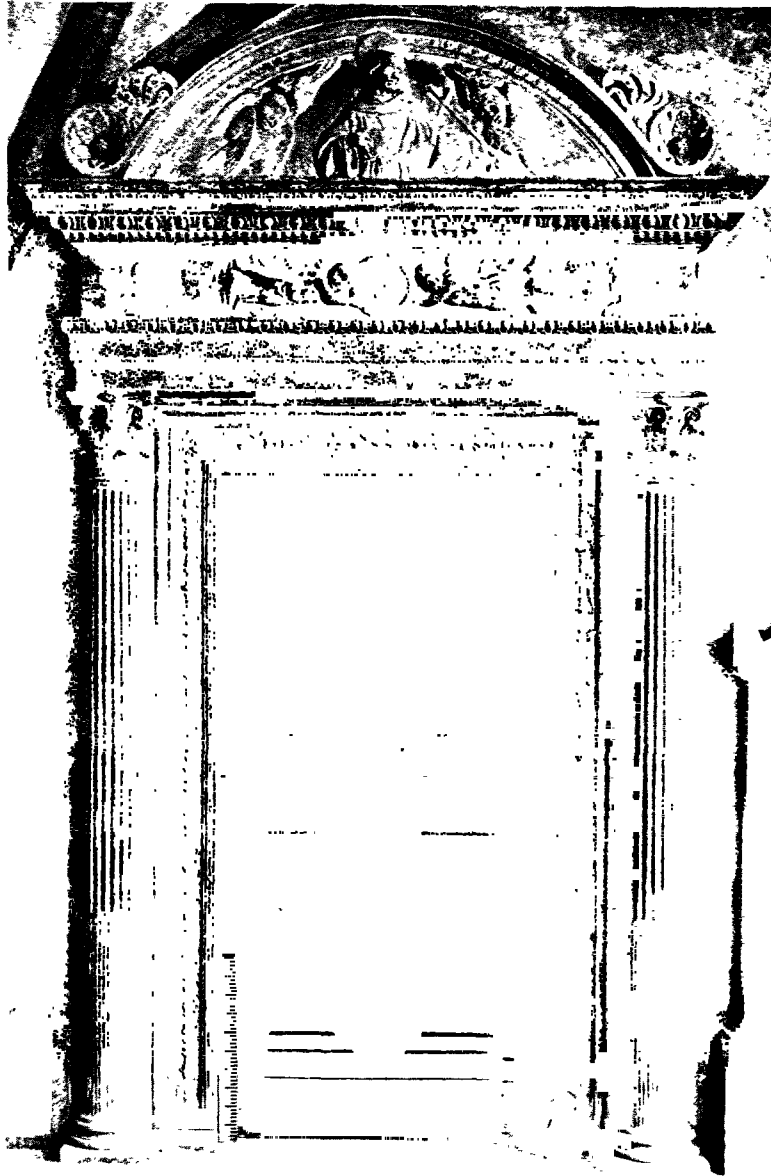


FRESQUE IN THE CLOISTERS OF THE BADIA.



FRESQUE IN CLOISTERS OF THE BADIA.

the crossing, the entablature that runs round at the springing of the vault, the roundels in the ceilings and the circular-headed moulded openings to the eight chapels: and yet there is a dignity and beauty of proportion obtained from these simple elements that makes this interior one of the most interesting that I know.



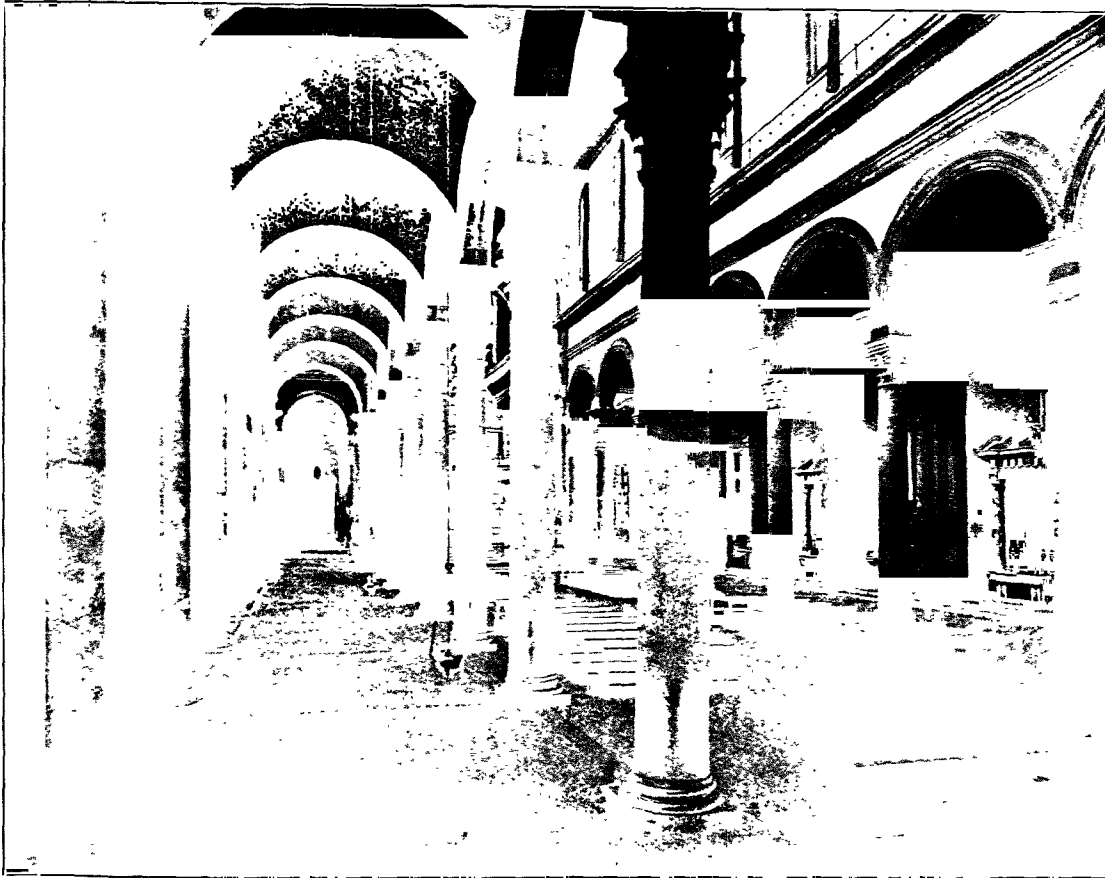
SANTA CROCE, DOOR IN THE CLOISTERS.

The cloisters here are charming, and one may perhaps compare them with other work of the same type from the same hand. Consider the proportion of the arcading and its relation to the loggia above and the effects of light and shadow; consider, too, the design of the beautiful and constructive brackets, some of them carved with the *Palle* of the Medici, and also the circular panel that marks the centre of each walk. And then turn to the picturesque cloisters of San Lorenzo where exactly the same treatment is adopted. Once satisfied, Brunelleschi was apparently content to repeat a design just as he would repeat the ornaments. Neither of these was completed during the architect's lifetime, but let us compare with them the arcade of the Innocenti, the proportions and disposition of which are beautiful, the almost exaggerated repetition being in itself a charm, and its spirit very little removed from that of Gothic. But skill is very evident in the adaptation of fresh treatment of traditional features in-

stanced in the relationship of architrave, frieze, and cornice, the exaggeration of the first and the subordination of the last to form a sill for the windows. Here, as at the Badia at Fiesole, we have an old type adapted and used afresh with new features, a type such as we have at Santa Maria Novella, or at Santa Croce from the hand of Arnolfo, but nowhere is this type used in Florence with greater effect than by Brunelleschi, and in the arcade of the Innocenti we have

the added interest of the beautiful and celebrated spandrel decorations by Andrea della Robbia.

Extremely satisfactory is the great cloister at Santa Croce, which some authorities ascribe to Michelozzo. Whoever may have been the author, the cloister is quite the finest in Florence, and to my mind is not spoiled by the filling in of the upper part. Here the proportion and treatment of the upper and lower stories approximate nearly to those of the Fiesole and San Lorenzo cloisters. The complete architrave, frieze, and cornice above the arcade is beautifully handled, the pilasters with just sufficient projection divide the wall surfaces into delightful



SANTO SPIRITO

panels, and the proportion of window to wall surface and enclosing lines is perfect. I should like to believe that the work is Brunelleschi's.

Before turning to the Duomo let us first glance at the church of Santo Spirito, which is, without doubt, Brunelleschi's finest creation as a completed building, and yet again it was only carried out by others after his death. Like the Badia at Fiesole it belonged to the Augustinians, and the present church was begun between 1428 and 1433 to replace an older and inadequate building. In 1470 the church of Santo Spirito was burnt on the occasion of the visit of Galeazzo Maria Sforza, Duke of Milan, and, if it was the new church as tradition says, it was rebuilt twenty-four years later. The building that was burnt is said by some to have

been the old one that was still standing. But however this may be, we undoubtedly have Brunelleschi's church in the main (probably altered in some respects in the carrying out), of vast size and very impressive—much more so than San Lorenzo. Indeed, it is the typically developed Renaissance church.

I do not know which we should consider the earlier design, this or that of San Lorenzo. The latter is said to have been begun in 1425, but the plans and preparations for building were matured during the five years previous to this date. Santo Spirito was begun perhaps five years later, but the decision to build a church was taken as early as 1397. If Brunelleschi was consulted even within ten years of the decision, this would be the first known large commission given to him, and yet the plan shows a marked advance on that of San Lorenzo, and the treatment, while less ornate, is more dignified and greater in conception.

In plan the church is Gothic—cruciform, with transepts that measure 191 feet across as against 107 for the width of the nave and aisles, so that their projection is very bold, and the arcade returns completely round them with very fine effect of vista, though the treatment of the piers that carry the dome arches at the crossing is weak in feeling, and wanting in the logical completeness and strength of the Gothic pier with its shafting and corresponding arch moulding above, and its satisfactory abutment for the nave arcade.

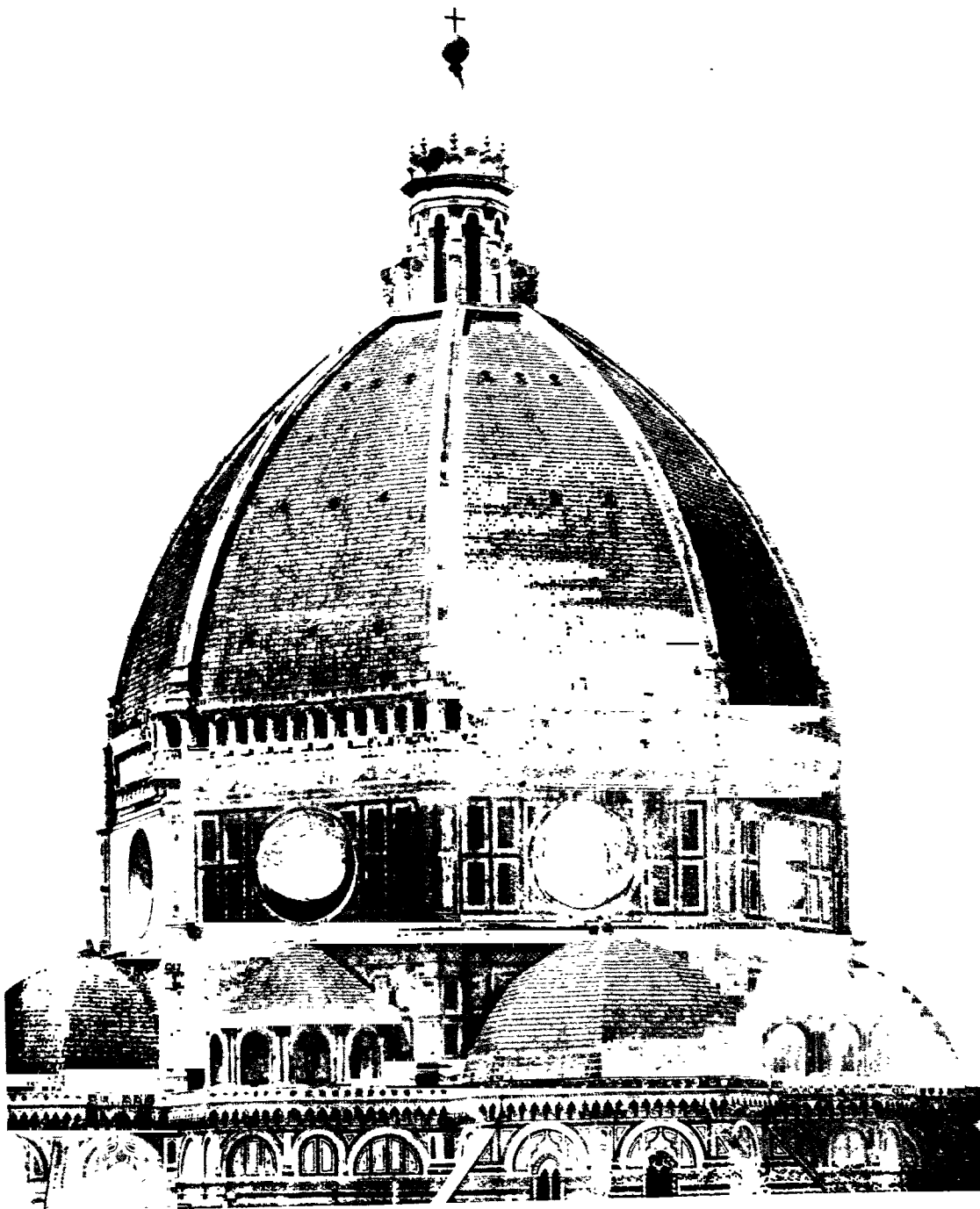
The architectural treatment is basilican, with flat coffered ceiling and clerestory windows, below which is a passage way upon the top of the cornice. The cornice and architrave are of stone, while the frieze is a stuccoed surface. The design of the columns, arches, and detached entablature blocks is much the same as that at San Lorenzo without the carved ornament, to the gain, I think, of dignity and repose, though the rich massed ornament of the Laurentian church is very charming as emphasising the arcade and connecting one Corinthian cap with another in a long series.

The aisle treatment here is better than that of San Lorenzo, for the pilasters do their functional work of carrying the cross ribs of the vaulting. Here again we may note another defect inherent in the style in the non-completion of the archivolts which we noticed in the Pazzi chapel, and in a work such as Santo Spirito, which has not the small charm of the Santa Croce Chapel but is a most ambitious architectural effort, we are inclined to notice such points the more.

The dome is carried on a low drum with pendentives, in which we again see Brunelleschi's circular ornament.

Now we must turn to the greatest work of all—that which was the ambition of his life. When the question of covering the central space of Santa Reparata entered the field of practical politics and the city began to discuss how it could be done and by what constructional genius, we wonder whether there was any “general recognition of a clearly arrested outline, a tangible embodiment which had solidified itself in the imagination of the people.” What, to begin with, had been Arnolfo's intention when he built the arches and the tribunes?—if, indeed, he had any intention. It seems incredible that he should not have roofed the space in his mind's eye, and felt equal to constructing what he had conceived. There is little doubt that he intended a dome of Lombard pattern and that it should spring from the lower cornice with the surrounding projections as abutments, and hardly any that he would have designed it on traditional lines, taking the baptistery or the cathedral at Pisa or some such building as his model, which the men who would execute it would understand, while the construction of it had probably been little thought of in detail or the cost of centering considered.

The only accessible information that we have (so far as I know) on this point is the representation of the Duomo in the fresco of the Spanish chapel at Santa Maria Novella, the authorship of which is doubtful. But it was probably painted either by Taddeo Gaddi, who



DUOMO - THE DOME.

died in 1366, or Lippo Memmi, who died in 1356, so that at any rate fifty years had elapsed since Arnolfo's death and another fifty was to pass before the actual project of building the dome was taken up. Taddeo Gaddi succeeded Giotto as architect at the Duomo, and, while this

may favour *his* authorship, certain inaccuracies in the drawing of the already executed part of the building seem to favour the painter's claim rather than that of the painter-architect. The clerestory has traceried windows and flying buttresses, and the cornice of the clerestory is continued into that of the dome: the main tribunes are much more important than those that exist and are carried up to the cornice, so that if the dome were brought down internally they would form very substantial abutments, while the smaller tribunes do not exist.

When we take up the story we find that the nave was nearly ready for the roof: the cornice alone remained to be completed, the great arches for the dome were levelled up, and two of the three great tribunes were finished as well as the smaller ones to which Brunelleschi added the beautiful arcades and roofs. There were therefore left for completion the cornice and roof, which were, after much debate, finished, and only the dome and main tribune remained. For the latter Brunelleschi made drawings, and it was carried out in 1417 and 1418, mostly during his absence in Rome.

As to the dome, no one could worm his ideas out of him, but at a conference in 1407 he insisted that the drum should be carried up 15 braccia higher. This, of course, added to the perplexity of the quidnuncs, who considered that he was only increasing his difficulties.

We cannot follow all the intricacies of debate and intrigue which preceded the actual work, but he carried his point about the raising of the octagon, and in 1418 suggested that a congress should be held to settle the vexed question, evidently sure that he and his scheme would carry the day against all comers. The suggestion may have been prompted by the final indignity which his opponents had inflicted at a meeting from which he was ejected after a debate about his proposal to erect the dome without centering, the cost of which he pointed out would be enormous in a country where marble was cheap but timber extremely dear, and, moreover, he held that it was quite unnecessary. His view, of course, was received with derision, as also his insistence that the vault must be built in two shells: he became violent and abusive, as usual in the face of determined opposition, and was carried out struggling.

To help him a friend offered him a small dome to build on his system—that of S. Jacopo Sopra l'Arno. This he did, but they said that the experiment was on too small a scale to convince. However, the great conference of architects and engineers was held, and as a result of the models submitted Brunelleschi was appointed architect at last, but—here came the sting—his old rival Lorenzo was again coupled with him, and in architecture too! Still the maestri and operai saved their face by appointing Battista Antonio, the capo ministro of the opera, as titular head, though the good man did not worry our architect as did Lorenzo, and apparently made himself useful by running errands.

We cannot spend time in examining the construction of previous domes, but those which Brunelleschi studied, despising, of course, the Lombard or Gothic domes, would give him as a main feature rib construction. The dome of Minerva Medica was constructed in this way with cross arches, and that of the Pantheon, according to Piranesi and Choisy, in much the same way.

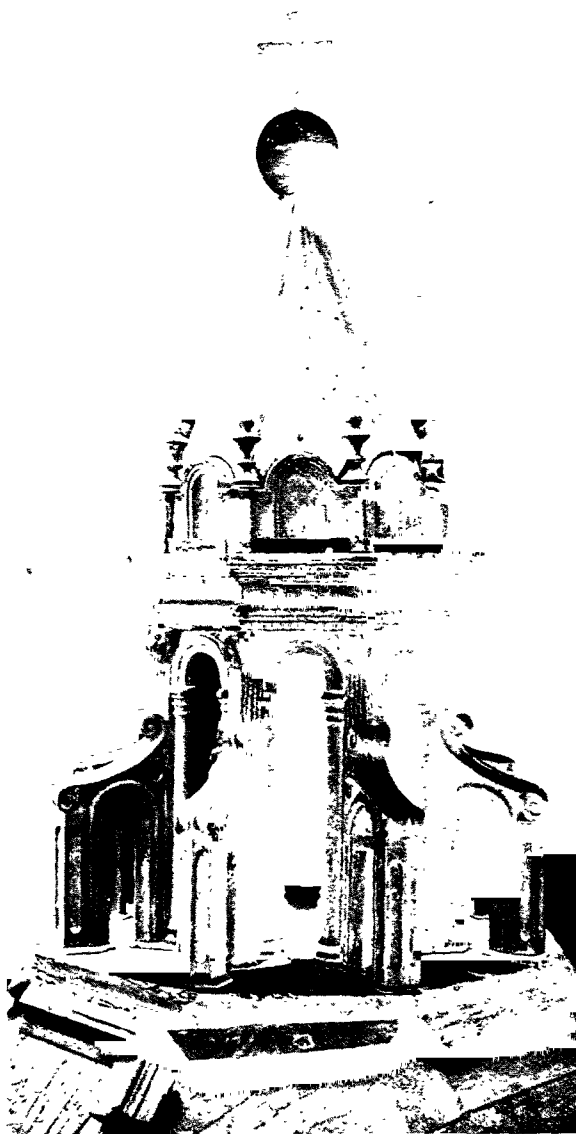
The problem set was to raise, on an existing structure of octagon shape, a dome that should be internally and externally the finest in the world, that should crown the city as seen from the surrounding approaches through the hills and along the river, and that should also satisfy the exacting ambition of the citizens as seen from the confined space that formed the Piazza del Duomo.

Such a combination had never been aimed at in previously erected domes: but who will say that the problem was not triumphantly met? And yet there was no attempt to distinguish external and internal lines such as was made at St. Paul's and other modern domes, and, to a modified extent, at St. Peter's. The section of Santa Maria del Fiore shows almost parallel curves inside and out.

As we have seen, the great point was that centering was to be entirely dispensed with; but was Brunelleschi's faith in himself as absolute as he would have the maestri believe, or did he wish to save their face and so obtain a start with his work and a truce from their carping opposition? His specification concludes with the non-committal paragraph—"In this way the cupola may be built without any centering, especially up to the height of thirty braccia (about fifty-five feet): from that height upwards it may be continued as shall be determined by the masters who build it"—"because," is also added by some, "practice is the best teacher." But this height was reached and passed and no centering was erected—scaffolding alone and platforms, on which were shops and restaurants, says Vasari so as to save time and keep the men continually at their work. Moreover, regulations as to their diet and the strength of their wine were very strict in order to keep them in training. Apparently great trussed purlins were thrown across the 139-foot chasm and the platforms carried in this way.

We must imagine the drum already completed and the dome on the point of springing from it in 1422, and twenty-four years of life still before the architect. For about nine feet six inches (3.064 metres) the wall is of solid stone. Each stone is laid lengthwise and dowelled to its neighbours, and iron clamps bind them to the buttresses, which rest on a bed of macigno and rise to the lantern ring.

Brunelleschi adopted the pointed form because he said that it was better adapted to carry the lantern than the semicircular, and it was natural as starting from an already prepared octagonal bed. The inner and outer shells are tied together by the twenty-four ribs, eight major ones at the angles and two minor ones between them on each face. The inner vault at its base was, according to his skeleton specification submitted with the model, to be $3\frac{1}{2}$ braccia (a braccio = .583 of a metre) or slightly over 6 feet, and to decrease to $1\frac{1}{2}$ at its summit, but as executed it is nearly the same thickness throughout. The outer covering, intended to protect the inner from the weather, but which, bonded as it is to the ribs by stiffening arches, adds materially to the strength, was to be $2\frac{1}{2}$ braccia at the base and to decrease to two-thirds of this thickness at the lantern ring—



DURAND. MODEL OF THE LANTERN OF THE DOME

a provision which was practically carried out. The minor ribs were to be 4 braccia wide at the base (though they are rather less as executed), and the great angle ribs double this width, and the whole construction, up to a height of 24 braccia, or about one-third of the height of the cupola, was to be of sandstone with joints radiating from the centres of the ribs, while above this height large bricks, weighing from 25 to 30 lbs., were used with joints radiating as before, an alternative for which was provided in the specification of *spugna*, or a kind of pumice stone, for lightness.

Two passages surround the dome at one-third and two-thirds of its height, and at these levels are strong bondstones binding together the inner and outer vaults, and the whole is further tied together by the ingenious and curious stiffening arches again radiating from the rib centres and sprung from angle rib to angle rib and built in with the intermediate ribs and also the outer covering. These are described by the architect as to be every ninth braccio, but in practice they only begin above the second gallery, and at the level of each of them are H-shaped iron ties, originally specified as oak, which run through the whole thickness and are shown in Durm's diagram. These were to be galvanised, as was all the ironwork, which was apparently supplied by the famous smiths of Pistoja.

Above the first passage runs the great wooden tie, of which I find no mention in the original specification. It forms a bond all round the dome and is mitred at each change of direction with a wooden template under the mitre, and round the joint were fixed bands of iron tightened up with oak wedges and the whole pinned together. This point was evidently considered by Brunelleschi as the most critical in the dome, though scientifically, I suppose, it should be higher; but in any case there has never been a sign of failure calling for strengthening measures as there have been periodically at St. Peter's, and it seems hardly likely that, had there been any tendency to spread, this bond could have been of much use in itself. This stability is all the more remarkable in that the springing of the dome is removed 40 feet above any possible abutment, without even the additional support of a peristyle, such as there is at St. Peter's; nor has it the internal abutment of the Pantheon. And yet St. Peter's has been with difficulty saved from collapse.

As to the effect inside and out there can scarcely be two opinions. One has only to imagine what the view of Florence would be from Settignano, or Fiesole, or San Miniato, without it, to realise its general beauty and the unique character that it gives to the city, or to stand at the corner of the Via del Proconsolo to imagine the difference in outline and grouping between the soaring mass as one sees it, and the shape that would probably have been in its place had the Lombard ideal been carried out. The outline and colour surpass anything of their kind that I know, and while its pointed form is suggestive of Gothic feeling, it really has none of the essentials of Gothic design, and is the finest example of Brunelleschi's freedom of thought and working.

For a few moments let us look at Brunelleschi's domestic work. Alterations such as he made at the Signoria, the Palazzo della Parte Guelfa, and other palaces, we cannot of course discuss. The principal buildings in which we can study his style are the Palazzo Quaratesi, at the corner of the Piazza del Duomo and the Via del Proconsolo, the Palazzo Barbadori, near the Ponte Vecchio, and the Palazzo Pitti. Of these buildings generally we may say that they are charming, refined, and elegant, prone to reverence of old forms, yet as instinct with a new spirit as are the Pazzi chapel or the Badia at Fiesole.

Of the real grandeur and scale of the Pitti no photograph gives any idea. Here the old Tuscan feeling, which we also get carried on in such palaces as the Strozzi, is most marked, the defensive and almost fortress-like expression of the wall surfaces being modified by the finely proportioned windows, and its great length emphasised by the continuous cornice and

unbroken by vertical lines. And yet this is of course not the building that Brunelleschi designed. His work, which came to an end prematurely, consists of the three great door openings (as they were at first) and seven windows above, and an open loggia was intended to form the top story. What further may have been intended I do not know, nor whether Ammanati's additions followed Brunelleschi's intention. Hardly this I should say: but he extended and completed the building towards the piazza and the wings back towards the gardens. If Professor Coreti is right in his theory of Brunelleschi's actual part in the palace, it does not seem after all to have been such an extraordinarily extravagant undertaking for a very wealthy citizen. But he had better fortune with Luca Pitti at the end of his life than he had had with Cosimo dei Medici at the beginning, though he died when the palace was only part way up and before his client had fallen into disgrace and beggary. A Medici, whose ancestor had refused to build as Luca built, completed his building for him and lived there as Duke of Florence.

A strong contrast to the magnificent and severe Pitti is the delightful Quaratesi, begun for Andrea Pazzi—the same Andrea for whom was built the capella of that name and continued for Jacopo his son, a notorious evil-liver who headed the conspiracy of 1478 against the Medici, and was tortured and hanged, bequeathing his soul to the devil. So a second client came to a bad end, but lived to inhabit a palace which externally and in its cortile show Brunelleschi's lighter touch to perfection. The rusticated base, and stuccoed upper story with the well-spaced and designed windows, the spots formed by the circular openings under the shadow of the wide eaves, and the cartouche at the angle, are all entirely in accordance with Florentine tradition and yet essentially mark the beginning of a new era. The ground story windows do not seem to me quite so happy as the rest of the building: but I believe these are not part of the original design. The cortile is among the most beautiful in Florence.

Michelozzo carried on the work after the designer's death, and Michelozzo has the credit of the Palazzo Riccardi, built, as we know, for Cosimo dei Medici subsequent to Brunelleschi's smashing *his* model for the building in a fit of passion. But after all some authorities think that it is Brunelleschi's and not Michelozzo's, and one would be glad to think that he did after all build the beautiful palace in which his patron and friend Cosimo lived, and in which Gozzoli painted those frescoes of such historic value.

After his death Florence honoured Brunelleschi as one of her greatest sons, and placed in the Duomo the fine medallion by Buggiano to his memory. Outside in the Piazza is a statue by Pampaloni of little artistic merit: but its sentiment is attractive, for the architect sits there with the instruments of his craft in his hands, and with eyes always fixed on the soaring dome that was the triumph of his life and his most precious legacy to his native city.

REVIEWS.

CHANTRY CHAPELS IN ENGLAND.

Les Chantres-Chapels Anglaises. Par Paul Beyer, Stagiaire de l'École nationale supérieure d'Architecture de Paris, Directeur de l'École de l'Architecture de Paris, Directeur de l'École de l'Architecture de Paris. Paris, 1908. (Hémisphères, 31, rue de la Harpe, Paris.)

The above Paper appeared, first, in French, in the *Bulletin Monumental*, vol. lxxii, p. 314, in 1908, and this year in English in the *Archæologia*, vol. lxxvi, pp. 1-32. The collaboration of M. Paul Beyer is one more proof of the growing interest taken by the young and scientific school of French archaeologists in English medieval art and architecture. The Romanesque and Gothic architecture of England is no longer a sealed book to French students; the very early solution in England of the main problems of medieval architecture—those of vaulting and abutment—meets more and more with acceptance; the supremacy of the later English Gothic in vaulting construction is incontestable; the affiliation of the French Flamboyant of the fifteenth century to the so-called English Decorated of the early fourteenth century has awakened lively discussion in France, and has in M. Camille Enlart a vigorous champion.

In the present Paper the writers have been fortunate in finding a subject which has never before been dealt with except in very fragmentary fashion. They have produced a really valuable monograph, full, detailed, and exhaustive in treatment; their Paper is likely to remain the classical authority on the subject. Chantries, *i.e.* endowments for the singing of masses for the soul of the deceased, became more and more common in England from Anglo-Saxon days onward. A poor man might leave money for the singing of half a dozen masses; a great personage for thousands or even tens of thousands. The poor man's masses would in a few days cease; the great personage arranged for masses to be sung for ever. They might be sung at some existing altar, or before some statue or fresco in the church; but in later days a rich man would arrange to have an altar of his own. Examples at Westminster are the tombs of Sir Thomas Vaughan and of Chaucer, where the slab that covers the tomb is utilised as altar, and just enough room is left at the foot of the tomb for the chantry priest to stand. Inside the grate in Henry VII.'s chapel the altar is at the east end; in the chantries of Henry V. and Abbot Islip there is a two-storied chapel; in the lower chapel was the tomb, above was the chapel for the chantry priests and singers; the arrangements here, however, are complicated by the fact that in Islip's upper chapel the "Jesus anthems" were also sung, and that Henry V.'s chapel was probably utilised as a watching loft, the Confessor's shrine with its priceless treasures being immediately below. In Oxford Cathedral also the two-storied chapel was probably similarly used; the upper part is in oak and is of open work, and

may well have been used as a watching loft for the adjoining shrine of St. Frideswide, as well as for the singing of masses for the repose of the founder of the chantry buried below. One of the puzzles in chantry chapels is the two-storied one of Richard Beauchamp at Tewkesbury; the ceiling extends only over the west half of it, and there are no stairs to it. The probability is that it was intended to place a kneeling statue of the slain knight on it, facing eastward. Henry VII. gave orders that a kneeling statue of himself, facing eastward, was to be placed on the Confessor's shrine; and at Tewkesbury itself on the summit of the Trinity chantry chapel is a niche containing a statue of Lord Despenser kneeling in prayer, with his face turned to the high altar. The later chantry chapels became very important edifices, erected here, there, and everywhere, inside the church, or glued on to it almost anywhere; it is indeed to the agglutination of chantry chapels more than to anything else—*e.g.* at Burford—that the English parish churches owe the irregularity and picturesqueness of their plans. In the last chantries erected—*e.g.* those of Bishop Fox and Bishop Gardiner at Winchester, the latter not erected till the reign of Queen Mary—the chapel included not only tomb, altar, and reredos, but a sacristy as well.

But chantries having become common, the common-sense of the English parishioner soon saw that they could be utilised for other purposes than for saying masses for the dead. Nowadays if a rector wants more services than he can manage himself, he appoints a curate—a deplorable practice. In the old days, if it was an urgent case, a second, a third, or half a dozen additional rectors would be appointed and the parochial church would become collegiate. The same object, however, could be accomplished more simply through the chantry system. All you had to do, when you drew up the deed of endowment, was to stipulate that the chantry priest should not only say the special masses for the founder of the chantry, but should also be present at all the services in the church and assist the parish priest in other ways. Perhaps you wanted to do something in the way of schooling of poor bairns. You might stipulate for this also in founding your chantry; or, if your money did not run to that, you might add to somebody else's chantry endowment, attaching your educational stipulations to the additional endowment; or you might make the chantry priest train the village choir. In these and in very many other ways the old men contrived to get a great deal of practical work out of the chantry priests. When the chantry endowments were all swept off—nominally to conquer once more the unconquerable Scots—all this useful work dropped and ceased; the abolition of the chantries was anything but an unmixed blessing.

One word of criticism. The accuracy of the writers in detailing and arranging the plethora of facts collected by them is quite noteworthy. I

should not, however, myself designate Henry VII.'s chapel a chantry chapel, nor should I style Torrigiano's altara chantry chapel altar. The object of the chapel is clearly stated in Henry VII.'s will: it was to be first and foremost the chapel of "ye glorious Virgin, ye Mother of Cryste, to whome alwaye in his lyfe he had a singuler and specyall devoeyon." Secondly, it was to contain "the bodie & reliques of our Vncle of blissed memorie King Henry the Sixth, and that of King Henry the VII himself & his Queen." The bronze grate itself was the chantry chapel, differing from other chantry chapels only in that it was of metal and not of stone. Its altar was not outside, but inside, and was dedicated to our Saviour. Its sacristy was the so-called Oratory, which is on the left as one enters the chapel in which Queen Elizabeth is buried. The Paper is illustrated with twenty-eight plates, many of them of much interest, especially those of the stained glass in the chantry chapels of King's College, Cambridge.

FRANCIS BOND [H.A.].

A CRAFTSMAN OF THE RENAISSANCE.

See Sculpture. Works of Nicholas Stone by A. F. Bullock. London, 1908. B. T. Eastford, 94 Holborn, W.C.

This work is reprinted from a series of articles which recently appeared in the *Architectural Review*. Mr. Bullock gives us an interesting account of a sculptor about whom little is known, but who nevertheless occupies a foremost position amongst the craftsmen of the Renaissance. During the seventeenth century Nicholas Stone was the most important sculptor that this country produced (for Grinling Gibbons was of Dutch origin); as master-mason to Inigo Jones he efficiently carried out much of that architect's work; and was indeed to Jones what Gibbons was to Wren.

Born in 1586, of humble parentage, after serving a short apprenticeship in London, he travelled in Holland, and eventually found employment at Amsterdam; returning to London in 1614 he established his business in Long Acre, and attracting the attention of Inigo Jones, who was then engaged on the new Banqueting House at Whitehall, he soon was busily employed as master mason upon a number of important building works. In the Science Museum the account books of his business are still preserved, and from these a very complete list of his works may be compiled. Mr. Bullock has evidently made full use of these accounts. Stone died in 1647, a few months before the birth of Grinling Gibbons. Towards the latter part of his life the standard of work he executed was not so high as in his earlier career, due no doubt, as Mr. Bullock suggests, to his employment of less skilled assistants. The best of his work as a sculptor is to be seen in the monument to Sir Francis Vere in Westminster Abbey (1614) and that to Sir Robert Cecil in Hatfield

Church (1618). Both are fine examples, and exhibit a technical skill and charm of composition that place them in a leading position amongst English sculpture of the period. The Digges monument in Chilham Church is another interesting example, with finely executed figures of the four virtues seated at the base of an Ionic column. The style of Stone's work varies considerably: sometimes we find a strictly classic spirit prevailing, sometimes a marked tendency to the pattern-book design of the low countries, and in the later work a distinctly rococo feeling. There can be no doubt that the actual designs of many of the more refined monuments were made by Inigo Jones himself (some of the drawings of Inigo Jones in the Worcester College collection were probably made for this purpose), and we feel that the author does not perhaps lay sufficient stress on the fact that Stone was very much influenced by the guiding hand of Inigo Jones. Mr. Bullock has rendered good service in bringing together so complete a collection of Stone's work, and his book, showing as it does evidence of considerable research, will be a useful addition to the literature of the English Renaissance. We should now like to see a similar volume devoted to the work of Grinling Gibbons.

H. INIGO TRIGGS [A.].

HOUSE DESIGN.

"Modern Homes": Selected Examples of Dwelling-houses described and illustrated by T. Raffles Davison, Hon. A.R.A.B.A., with a Foreword by Sir Aston Webb, R.A. Lond. 4to. 1909. Price 15s. net. [George Bell & Sons, Colindale Garden.]

This attractive work, prefaced by a sympathetic "foreword" from Sir Aston Webb, is one which will appeal, not only to architects, but to all who take an intelligent interest in the development of the art of building and the other arts allied thereto. Few can have the opportunities enjoyed by Mr. Raffles Davison for reviewing the architectural work which is being carried out in England at the present day, and his descriptions are always characterised by a keen perception of the qualities which go to make up a successful design and a facile method of expression.

The first part of the book contains some suggestive hints on house design generally, dealing with the arrangement of the plan, the relation of a building to its surroundings, exterior grouping, the use of materials, &c. In emphasising the value of simplicity and breadth in house design the author says:—"It is too often forgotten that the qualities which go to make a building look home-like are needed in all kinds of houses, and may even find expression in very large buildings. But in all degrees of houses one should look for a suitability of expression both for the purpose and use of the individual owner and also for the locality in which it is erected."

None will deny, however, that there has been a steady improvement of late years in house design in this country, and it is a matter for congratulation that, as compared with those of other countries, British homes of to-day stand pre-eminent in homelike qualities, in individuality, suitability, and restfulness. The emancipation from the gewgaws of comparatively few years ago and the reawakening of interest in architectural work may possibly, in a great measure, be traced, as the author suggests, to the influence of the development of the accessory arts.

The greater part of the book consists of examples of houses designed by several of our best known architects, which have been selected with nice discrimination. Each example is fully and sympathetically described, and is illustrated by a general plan showing the laying-out of the garden and other surroundings, a plan of each floor, exterior and interior sketches in the author's well-known manner, and by occasional photographs. The value of some of the plans would have been considerably increased by the addition of a scale and an indication of the points of the compass. It may also be remarked that the printing on some of the plans is so small as scarcely to be readable by a person with ordinary eyesight without the aid of a magnifying glass.

Where all the subjects have been so judiciously selected it may perhaps be invidious to particularise, but among the larger examples the designs of Mr. Lutyens and Mr. E. J. May, and among the smaller those of Mr. Baillie Scott, linger in the memory as admirable expressions of the best traditions of homelike English architecture. One may perhaps be excused for regretting that in this portion of the work no examples by Mr. Ernest George or Mr. Norman Shaw, to name no others, are included.

In the planning of small houses it may be laid down as a general rule that the best results are obtained by the development of the cottage type of plan rather than by attempting to reproduce a mansion on a small scale. In one or two of the examples given, however, some vagaries of planning may be noticed which do not call for imitation. In the case of "Cherrycroft," for instance, it would appear that the servant in going from the kitchen to the front door is obliged to traverse the dining-room, and at "Heather Cottage," the pantry, according to the plan, is without light or ventilation of any kind.

How often, too, does one not find windows with their heads some two or three feet down from the ceiling or with their sills some five feet above the floor? Such an arrangement may add to the picturesqueness of the exterior, but it certainly does not conduce to comfort or the best hygienic conditions within the house.

It is unfortunate that the plans of "Marsh Court" are given in connection with the descrip-

tion of "Little Thakeham" as well as in the place where they belong, and that the sketch of the Hall at "Luckley," referred to in the letterpress, appears to have been omitted. These errors will no doubt be repaired in the next edition of the work, which it is to be hoped will be called for in the near future. In this connection it may also be noted that in a few instances the references to the plates in the letterpress are incorrect, and that a printer's error occurs in the spelling of one of the names in the list of illustrations at the beginning of the book.

These are, however, only slight blemishes on a book which one lingers over with pleasure, and with the hope that it may be only a forerunner of a more ambitious work. Why should not the author do for modern domestic architecture what Mr. Garner and Mr. Stratton have done for Tudor, and Mr. Belcher and Mr. Macartney for later work? It were worth doing, and no one is better qualified to do it than Mr. Raffles Davison.

HERBERT PASSMORE [A.].

GLASTONBURY ABBEY.

An Architectural Handbook of Glastonbury Abbey, with an Historical Chronicle of the Building, by Frederic Bligh Bond, F.R.I.B.A., Director of Excavations at Glastonbury Abbey on behalf of the Somerset Archaeological Society. Bristol, 1909. Price 2s. net. With frontispiece in colour and 12 plates. [E. Everard, Broad Street, Bristol.]

The design of the author of this interesting Handbook has been "to present in a concise form a body of material of value to the architectural student, and at the same time to deal with this in a manner most likely to be serviceable and attractive to the general reader, or to the visitor, who may not be versed in the technicalities of building."

The present Handbook therefore differs considerably in scope from the majority of local guides and histories, and appeals to the intelligent observer of these ancient ruins, who may wish to obtain an insight into the general arrangement or appearance of the Abbey Church of Glastonbury before the dissolution of the monastery, and to trace the date or sequence of the construction of its various portions.

Mr. Bligh Bond has carried out this purpose in an admirable manner, and his book will be read with much appreciation by all who have known Glastonbury in the past, or are now making their first acquaintance with it.

The reconstruction of this great building is by no means an easy task, for the ruthless hands of destroyers have been busy upon the church and its surroundings, which have served as a quarry for the use of the neighbourhood—gunpowder having been at one time employed to effect their more speedy demolition. Even so late as the latter part of the eighteenth century a quantity of material was taken away to form the causeway connecting

Glastonbury with Wells. The Trustees are now carrying out a work of repair and support in regard to the surviving ruins, and none too soon, for the writer of these lines has noted many dilapidations accruing to St. Mary's Chapel during the last forty years which judicious repair would have obviated. While lamenting, however, the terrible havoc of the past, we are grateful for what remains, and under the guidance of Mr. Bligh Bond it is possible to form, in some detail, an idea of the size and beauty of the church before it suffered from the rapacity of the spoiler.

Mr. Bond divides his book into two sections—one dealing with historical considerations, and the other and larger section setting forth the architectural scheme and features of the Great Church, and of the Chapel of St. Mary at its western extremity.

In the first section, after some introductory pages, Mr. Bond supplies a chronicle of the Abbey buildings from A.D. 1184, which also includes a carefully compiled account of the destructive inroads made upon them and a brief survey of the ruins as they appear to-day. He also traces the influence of contemporary builders, which may be recognised in the existing remains.

In the second and more detailed portion, the ground-plan and features of the church are described, commencing with the beautiful chapel of St. Mary, and proceeding thence to the nave and the Early English Galilee, with its later modifications, the cloisters, transepts with their chapels, the choir and its aisles, and the ambulatory or retro-choir, with its five eastern chapels, concluding with the Edgar Chapel, one of the last additions to the church. A Table is also added enumerating the works now extant, and their builders, whether before or after the Great Fire of 1184.

The *Vetusta Ecclesia* of an earlier age had perished in this conflagration, and in its place arose the Transitional Norman building, still archaic in design, yet "representative of the most progressive ideas and the highest skill and knowledge that its time could afford. This," Mr. Bond remarks, "seems to suggest a desire on the part of the builders to make their work reminiscent of the high antiquity and venerable past of the former church; and we have little doubt that it was so intended." The chapel was consecrated by Bishop Reginald in 1186-7. The rebuilding of the Great Church was then begun, and during the succeeding century the nave and aisles, the choir of four bays, and the transepts were erected. Subsequently, in 1322-3, the great choir screen was built, and in 1342-74 Walter de Monington "lengthened the choir by two bays, refaced its interior, built the retro-choir, and vaulted the whole of his work." Monington was a talented builder, "and there is no doubt that he was influenced by the famous work in the Benedictine Abbey of Gloucester, whose

choir was in process of being remodelled about A.D. 1337-40. He cut away the great arches over the triforium with the wall-surface above them overhanging the lower part, to reduce the whole to a uniform thickness. Then he applied to the whole height of the walls above the choir arcade a network of beautiful panelling." Mr. Bond has illustrated this remodelling with a conjectural elevation of two bays of Monington's choir, placed side by side with the elevation of two bays of Gloucester choir, in which the dissimilarities of treatment, though with the same general object in view, are exhibited. These are two of the suggestive drawings with which Mr. Bond has embellished his book, others being an elevation of two bays of the south transept, a conjectural reconstruction of one bay of the north wall of the Galilee, and a general plan of the church, with bird's-eye view of the existing ruins.

The foundations of the Edgar Chapel were rediscovered in 1908. It was begun by Abbot Bere, 1493-1524, and was situated east of the retro-choir, and a small apse and chantry or sacristy were added later, probably by Abbot Whiting. Other remains discovered last year at the west end of the nave and at the crossing may possibly point to Herlewin's church, 1101-1120, "and there is nothing inherently unreasonable in supposing that the foundation below may be a relic of Ine's Church."

The internal dimensions of the present church from the west end of St. Mary's Chapel to the east end of the apse of Edgar's Chapel have been ascertained by Mr. Bond to be about 580 feet.

It is only necessary to add that this Handbook is copiously illustrated with views taken from old prints and modern photographs, a feature being the coloured frontispiece of the church in 1757, reproduced from a water-colour in the possession of Mr. A. M. Broadley. On the cover is a design which may represent the church, derived from fragments of encaustic tiles found at Glastonbury. The Handbook was issued in view of a recent ceremony there, but a revised edition will be published in due course, and we heartily congratulate Mr. Bligh Bond on having produced this most interesting book, and the public generally in possessing the assistance of so competent a guide.

C. H. MAYO, M.A.,
Non-Res. Canon of Sarum.

THE A.A. SCHOOL OF ARCHITECTURE.

It is much to be hoped that all who are interested theoretically or practically in architectural education will find time to pay a visit, however brief, to Tufton Street this week to enjoy the sight of the wonderful output of work under the four years' scheme of the A.A. School of Architecture, as now organised. This systematised education is of course, as is well known, entirely distinct from the work done at home and submitted monthly or fortnightly to the criticism of visitors who kindly give their services for this purpose—the latter being, in fact, a survival of the original class of design at the A.A., a form of instruction which experience has shown to be an indispensable feature of A.A. work.

The Day School is the reservoir from which the future architects will be drawn, the recruiting ground in which the goose-step stage of architectural education can be best passed through, and the first eliminating stage of professional life be met and overcome. Every school of architectural thought will naturally desire to be at least represented in the curriculum if not to be dominant there, on the principle of the hand that rocks the cradle rules the throne. With such impartiality as the writer can command, he will express the opinion that the thing taught matters less than the teacher, and in Mr. Maule the A.A. has a head able to inspire as well as teach a small army of some sixty to seventy young men at an age when it does not take much study to produce a weariness of the flesh. The unrivalled experience of the A.A. in architectural education has taught it to adapt itself to the professional needs of the day—the need of the average architectural student is met, and we all gain by the raising of the level from which the brilliant and exceptional mind can take its flight.

The work shown illustrates the average as well as the best, and shows clearly the all-round sensible and solid character of the teaching and work of the school. There are large subjects as well as small, and artistic and even decorative studies as well as the severely practical sheets of girders and pipes, which must melt the hearts of the scientific examiners of the R.I.B.A.

The holiday work is particularly strong, and is a most essential part of the work, because it sets the student firmly on the path of his own education, which must be based on the study of the great works of the past. One would be almost afraid of having such formidably equipped young gentlemen in the office if it were not that poor human nature's affinity for instruction bears some slight resemblance to that of the duck for rain.

ARTHUR T. BOLTON [F].



9 CONDUIT STREET, LONDON, W., 24th July 1909.

CHRONICLE.

THE SUMMER EXAMINATIONS.

The Preliminary.

The Preliminary Examination, qualifying for registration as *Probationer R.I.B.A.*, was held in London and the undermentioned provincial centres on the 14th and 15th June. Of the 178 candidates admitted, claims for exemption were allowed to the number of 52. The remaining 126 candidates were examined, with the following results:—

District	Number Examined	Passed	Relegated
London	62	50	12
Bristol	9	6	3
Cardiff	9	7	2
Glasgow	8	7	1
Leeds	10	9	1
Liverpool	7	7	0
Manchester	14	11	3
Newcastle	7	7	0
	126	104	22

The passed and exempted candidates—numbering altogether 156—have been registered as Probationers, and are as follows:—

- ALDOUS: Charles Fencott; Lancaster Lodge, Amersham Road, Putney.
 ALLEN: George Alfred; 55 Marylands Road, Paddington, W.
 ALLEN: Walter Godfrey; "Rosville," Richmond Hill Avenue, Clifton, Bristol.
 ARCHBOLD: William Heslehurst; 86 Victoria Road, Middlesbrough, Yorkshire.
 ASHDOWN: Arthur James; St. Austill, Whitehall Road, Harrow-on-the-Hill.
 ATKINSON: James; 112 Ulverston Road, Dalton-in-Furness, Lancashire.
 BARDENS: Sidney Herbert; "Kobe Lodge," Cauldwell Avenue, Ipswich.
 BARROW: John William; 16 Kensington Road, Morecambe.
 BAYNES: Edward Stuart Augustus; 120 Warwick Street, Eccleston Square, S.W.
 BENNETT: Philip Dennis; 52 Farquhar Road, Edgbaston, Birmingham.
 BLAND: Edgar Cooper; The Grammar School, Wellingborough, Northants.
 BOOKER: George Arthur; "Glenwood," Rippon Road, Hillsbro', Sheffield.

- BOOTH: Gerald Bonfield: "Park-side," 591 Finchley Road, N.W.
- BOWMER: Wilfrid Henry: 2 Ship Street, Oxford.
- BREWILL: Lionel Colin: Edwalton Valley, Notts.
- BROUGH: George Darroll: 89 Rimsden Road, Balham, S.W.
- BROWN: Arthur Spencer: The Red Cottage, Slough, Bucks.
- BROWN: Reginald Ernest: Danedin, Portway, Wells.
- BRUCE: John Clayton Collingwood: 4 St. Thomas' Terrace, Newcastle-on-Tyne.
- BRUNELLI: Giuo Beniamino Angelo Maria: c/o Messrs. Nicholson & Corlette, 2 New Square, Lincoln's Inn, W.C.
- BUSH: Douglas: 102 Fishergate, Preston.
- BUTCHER: Albert J.: Hamilton House, Clifton Road, Weston-super-Mare.
- BUTLER: Arthur Stanley George: 71 Ivema Court, Kensington, W.
- BUTLER: Walter: York Villas, Normanton, Yorks.
- CASH: Herbert William: 7 Connaught Road, Harlesden, N.W.
- CASHMORE: Francis Milton: 26 Englands Lane, Hampstead, N.W.
- CATCHPOLE: Cyril Godfrey: 183 Princes Street, Ipswich.
- CHANT: Arthur Guy: Lindow Lodge, Lancaster.
- CLAYTON: Charles Laurence: 10 Prince Albert Street, Brighton.
- COCHRANE: Hugh Carew: 17 Highfield Road, Rathgar, Dublin.
- COLDHAM: Richard Daniel: 22 Union Street, High Barnet, Herts.
- COPPLESTONE: Thomas Stapledon: 8 Dix's Field, Southernhay, Exeter.
- CRASKE: Clifford Wigg: 24 Newstead Grove, Nottingham.
- CULVERWELL: Wilfrid Lovedere: "Mount View," Gibbs Road, Pen-y-lan Park, Newport, Mon.
- DAY: Maurice: 22 Tavistock Road, Westbourne Park, W.
- DODD: John: 176 Stanton Street, Newcastle-on-Tyne.
- DODD: Ronald Feilding: "Cronk-y-Cree," Castletown, Isle of Man.
- DOHERTY: William James: 10 Sunbeam Terrace, Londonderry, Ireland.
- EDWARDS: Eustace Herbert: 4 Crow Tree Lane, Daisy Hill, Bradford, Yorks.
- FARMER: Basil: Siddington, Cirencester, Glos.
- FAUSSET: Stuart Simon: 16 Chichester Avenue, Belfast.
- FENNER: Leslie: "Eastville," Martfleet, Hull.
- FISH: Thomas Percival: "St. Leonards," Glentworth Road, Redland, Bristol.
- FREAKER: Allan Lionel: 12 Culmstock Road, West Side, Clapham Common, S.W.
- FREAR: Ernest: 135 Radford Road, Nottingham.
- FURNER: Arthur Stanley: 29 Woodstock Road, Redland, Bristol.
- GEE: Ernest: "Belmont," Waterloo Park, Waterloo, Liverpool.
- GOLDSCHMIDT: Cecil: "Fontenay," Rathen Road, Withington.
- GORDON: Donald Jervis: Linden Chase, Sevenoaks, Kent.
- GRAY: John: Cygnet Bank, Hyndford Bridge, Lanark, N.B.
- GRELLIER: Cecil: St. Martin's Croft, Epsom, Surrey.
- GUNTON: William Henry: Fin-bury House, Blomfield Street, E.C.
- HALL: William Basil: "The Rivulet," Radnor Park Avenue, Folkestone.
- HARLAND: Norman Gregory: 5 Glenarm Road, Lower Clapton, N.E.
- HARRINGTON: Cyril: "Ashlin," Hertford House, 173 Chatham Street, Liverpool.
- HARRIS: Mortimer: 56 Clovelly Road, Ealing, W.
- HART: Arthur Reginald Glendower: 65 Milson Road, West Kensington, W.
- HAWES: Frederick Laurence: 17 Highlever Road, St. Quintin Park, W.
- HIGGOTT: Samuel Brian: Brian-tone, Burton-on-Trent.
- HOFFMANN: Conrad: 28 Somerset Road, Boscombe, Bournemouth.
- HOFER: Max Richard: St. Catherine's Lane, Eastcote, near Pinner.
- HOLAWAY: Charles Edmund: 43 Parkgate Road, Chester.
- HOLDEN: Rupert Walmsley: Hillcott, Lostock Park, Bolton, Lancashire.
- HOLST: Knud: 10 Basinghall Street, E.C.
- HOLT: William Sharp: "Gowanlea," Linthorpe, Middlesbrough.
- HOOPER: Edmund Leslie: Tregadillett, Launceston.
- HOPEWELL: James Handley, Hartfield Rise, Eastbourne.
- HORSBURGH: Arthur Lindsay: 238 Barcombe Avenue, Streatham Hill, S.W.
- HOWELL: Cuthbert Cole: "Brynhyfryd," Aberavon, South Wales.
- HUDSON: Frank Ernest: 66 Greyhound Lane, Streatham, S.W.
- HUGHES: Basil: 17 St. Swithin's Lane, E.C.
- INGHAM: George Frank: Hullen Edge, Elland.
- JAMES: Charles Holloway: Linden Lodge, Tuttle, Gloucester.
- JAMIESON: William Henry, Jun.: 44 Holme Road, West Bridgford, Nottingham.
- JAY: Edwin Phillip: Surrey Cottage, Littlehampton.
- JENKINS: Rowland Henry: Wrayleigh, Bury Road, Hemel Hempstead.
- JENKINS: William Mareday: 26 Cwrt Ucha, Port Talbot, Glam.
- JEUNE: Bertram Hamner Bunbury Symons: The Chalk Pit, Henley-on-Thames.
- JOHN: David Hopkin: Plough Inn, Cefn Cribbur, near Bridgend, Glam.
- JOHNSON: Arthur Gerald: 146 Hainault Road, Leytonstone, N.
- JOHNSON: Reginald Sidney: Stafford Lodge, Stafford Road, Croydon.
- JOHNSON: Thomas: 6 Park Road, Wigan, Lanes.
- JONES: Aneurin Foulkes: 1 Stewart Road, Oswestry, Salop.
- JONES: John Reginald: Yanwath, near Penrith.
- JOSLIN: Gordon Arthur: 12 Northern Outfall, Beeton, North Woolwich, E.
- KESSING: Gordon Samuel: c/o Messrs. J. J. & E. J. Clark, 395 Collings Street, Melbourne, Victoria.
- KITCHENER: Arthur James: Bennington, Stevenage, Herts.
- KNIGHTS: Robert Edward Vallis: 32 Bevington Road, North Kensington.
- LAIT: Leonard Harry: 71 Coningham Road, Shepherd's Bush, W.
- LAMBERT: Herbert: Thornycroft, Kew Road, Richmond, Surrey.
- LANDY: Hermann: 34 Pynland Road, Canonbury, N.
- LAWRENCE: John Hubert: Glenside, Skewen, near Neath.
- LAWTON: William Victor: St. Peter's School, York.
- LEIGH: Herbert Gordon: "Belvoir," 14 Cautley Avenue, Clapham Park, S.W.
- LEMON: Ernest Campbell: 8 Dover Road, Birkdale, Southport.
- LEWIS: Rowland: 15 Cowbridge Road, Bridgend, Glam.
- LINDSLEY: Thomas Driver: 10 Lansdowne Terrace, Wakefield, Yorks.
- LOWES: Albert Edward: 178 Portland Road, Newcastle-on-Tyne.
- LUTYENS: Eadred J. T.: St. Mary's Lodge, Bedford.

- MCCAUSLAND: Conolly John; Groom-port, Park Hill, Cusshalton, Surrey.
 MACGREGOR: James; 14 Viewfield Terrace, Dunfermline.
 McLACHLAN: Robert; 23 Clarendon Road, Lewisham, S.E.
 McLEAN: George; 6 Bank Place, Portmadoc, North Wales.
 MANT: Frederick George; c/o Messrs. Nicholson & Colette, 2 New Square, Lincoln's Inn, W.C.
 MAXWELL: Herbert Percy; White House, Pairston, nr. Pontefract, Yorkshire.
 MAYNARD: Frederick James; 166 Hainault Road, Leytonstone, E.
 MELLOWS: Joseph S.; Clouds Cottage, Stapleford, Notts.
 MILBURN: William Nixon; "The Green," Wetheral, Carlisle.
 MILLWARD: William Selwyn; 51 Bangor Road, Roath Park, Cardiff.
 MITCHELL: Andrew; 39 Guild Street, Aberdeen, Scotland.
 NEWTON: William Godfrey; 13 Earl's Terrace, Kensington, W.
 NICHOLS: Charles Edwin; Rectory Farm, Eckington, Sheffield.
 OWEN: George Burgoyne; 7 Belsize Grove, Hampstead, N.W.
 PERRIN: Joel Henry Williamson; "Crossfell," Tilehurst Road, Reading.
 POPE: Clement Lawrence; "Beechwood," Hill Lane, Southampton.
 PRESTON: Eric Collingwood; Abbots Grange, Chester.
 QUARMBY: George Frederick; 39 Warwick Road, Earl's Court, S.W.
 RATCLIFF: Fred; 19 St. James Street, Sheffield.
 RAYNER: William Dex Lea; Elm House, Bolton Road, Grove Park, Chiswick, W.
 REID: Claud Boileau; 307 Vauxhall Bridge Road, S.W.
 RHODES: Harry Gordon; 4 Princes Street, Stockport.
 RHYS: Howard Leonard; 14 Queen Street, Bridgend, Glam.
 RIPLEY: Cedric Guiney; Bowthorpe, Ipswich.
 ROBERTSON: Allan Fyfe; "The Manse," Methven, Perthshire.
 ROBINSON: Philip Gilbert; "Treen," Allerton Park, Chapel Allerton, Leeds.
 ROSS: Leslie Owen; 31 Moreton Place, Belgrave Road, S.W.
 SCAMMELL: Edward Webley; 13 Maurice Road, St. Andrew's Park, Bristol.
 SEABROOK: Samuel Broughton; 120 London Road, Ipswich.
 SHELMEKDINE: Anthony Neal; 3 Princes Gate East, Liverpool.
 SHIPLEY: Ralph Reginald; Ivy House, Woodbine Terrace, Gateshead.
 SIBBITT: Bernard; 48 Nicander Road, Liverpool.
 SILCOCK: Arnold; Walden, Widcombe Hill, Bath.
 SILCOCK: Francis Howard; Walden, Widcombe Hill, Bath.
 SMITH: Egmont Findlay; Myrtle Bank, Oatlands Drive, Walton-on-Thames, Surrey.
 SMITH: Ernest Kennedy; 73 Woodland Gardens, Muswell Hill, N.
 SOPER: Stanley George; "Wickham House," 208 Lewisham High Road, Brockley, S.E.
 STEPHEN: Noel Shaw; "The Crosslooms," Mallington, Chester.
 TAYLOR: William Allen; 16 Jessica Road, Wandsworth Common, S.W.
 TEATHER: Kenneth Charles Marshall; 41 Partridge Road, Cardiff.
 TINKER: Reginald; 26 Hatwood Road, Southport.
 TOLHURST: John Basil Lowder; "St. Alban," 47 Manor Road, Beckenham, Kent.
 TOMLINSON: Lawrence Digby; 27 Gladstone Street, Scarborough.
 TOWNSEND: Cecil William; Denstone College, Staffs.
 TRAYLOR: William Morgan; "Wyvenhoe," Llanthwy Road, Newport, Mon.
 WALTON: Norman Allan; Netherlea, Bramhall, Cheshire.
 WARDILL: Reginald William; "Glai-dale," Hill Road, Chelmsford.
 WEBBER: William Kingsbury; "Inverlair," 61 Lansdown Road, Bournemouth.
 WHIPP: John Roland; High Bank, Ashton-on-Mersey, Cheshire.
 WILLS: Trenwith Lovering; The Buff House, Hightown, near Liverpool.
 WILSON: Andrew; Victoria Cottage, Methil, Fife-shire.
 WILSON: Robert; "Almahia," Alma Street, Falkirk.
 WINDER: Arthur Mayall; 254 Waterloo Street, Oldham.
 WOOLER: Willie; 99 Bishop Street, Alexandria Park, Manchester.
 WRAY: Edward John; 5 Fanshawe Street, Hertford.
 YOUNG: Cedric John Mathieson; Union Mount, Glasgow Road, Perth.
 YOUNG: Graham Conacher; Union Mount, Perth.

The Intermediate Examination.

The Intermediate Examination, qualifying for registration as *Student R.I.B.A.*, was held in London and at the undermentioned provincial centres on the 14th, 15th, 17th, and 18th June, when 144 candidates were examined. The results are reported as follows:—

District	Number Examined	Passed	Relegated
London	87	36	51
Bristol	5	3	2
Cardiff	4	0	4
Glasgow	4	3	1
Leeds	19	8	11
Manchester	15	10	5
Newcastle	10	5	5
	144	65	79

The successful candidates, who have been registered as *Students R.I.B.A.*, are as follows, given in order of merit as placed by the Board of Examiners:—

[The initial "P." signifies *Probationer R.I.B.A.*]

- HADWEN: Noel Waugh [P. 1905]; Kebroyd, Triangle, Yorks.
 LENTON: Frederick James [P. 1907]; 18 High Street, Stamford, Lincs.
 SMITH: Wallace [P. 1907]; "The Knoll," Lenton Sands, Nottingham.
 HILL: Joseph [P. 1905]; 8 Simonside Terrace, Heaton, Newcastle-upon-Tyne.
 HUGHES: Thomas Harold [P. 1908]; Royal College of Art, South Kensington, S.W.
 LEROY: Adrien Denis [P. 1906]; 21 Gore Road, South Hackney, N.E.
 WILLIAMS: Llewellyn Ebenezer [P. 1908]; "Upwood," The Bridle Road, Purley, Surrey.
 PATERSON: John Wilson [P. 1907]; 3 Sciennes Gardens, Edinburgh.
 WINCH: Arthur [P. 1904]; 295 Roundhay Road, Leeds.

- FOWLER: Charles Roy [P. 1908]; 2 Huntingdon Road, East Finchley, N.
- HEDLEY: George Ernest [P. 1905]; Savings Bank, Barrington Street, South Shields.
- JOHNSON: Bruce [P. 1905]; 10 Seaton Avenue, Mutley, Plymouth, Devon.
- STURGEON: Robert Victor [P. 1905]; 23 Range Road, Whalley Range, Manchester.
- CREED: Richard, Jun. [P. 1908]; 8 Gray's Inn Place, W.C.
- HOWARD: Percy [P. 1905]; 15 Oldham Road, Waterloo, Ashton-under-Lyne.
- LAWSON: Wilfred [P. 1907]; 41 Woodbine Street, Gateshead-upon-Tyne.
- BRODIE: James [P. 1905]; 27a Old Bond Street, W.
- BAREFOOT: Herbert John Leslie [P. 1906]; 13 Wexford Road, Balham, S.W.
- CHETWOOD: Henry John [P. 1902]; Waltham Abbey, Essex.
- HILL: Henry Oswald William [P. 1908]; "The Nook," Oughttrington, near Lymm, Cheshire.
- KAY: John William [P. 1907]; "The Square," Kingsbarns, Fife.
- CLARKE: John Moukling [P. 1906]; "Brentwood," Fulwood, Preston.
- LEATHEREN: William Harding [P. 1906]; "Manchester House," West Street, Fareham, Hants.
- PEARSE: Geoffrey Ea-teott [P. 1904]; 43 Wood Lane, Shepherd's Bush, W.
- JELLEY: Frederick Richard [P. 1904]; 14 Carlton Terrace, Swansea, South Wales.
- HUNT: Spencer Grey Wakeley [P. 1906]; 5 Lancaster Road, Brighton.
- RUSSELL: Robert Tor [P. 1906]; 11 Gray's Inn Square, W.C.
- DEWHIRST: Ralph Henry [P. 1905]; c/o Messrs. Perkin & Bulmer, City Chambers, Leeds.
- NICHOLSON: Frederick William [P. 1908]; 20 Preston Grove, Anfield, Liverpool.
- FISH: Thomas Percival [P. 1909]; "St. Leonards," Glentworth Road, Redland, Bristol.
- HILL: Christopher Benson, Jun. [P. 1908]; 31 Marsh Street, Wombwell, near Barnsley, Yorks.
- OWEN: George Burgoyne [P. 1909]; 7 Belsize Grove, Hampstead.
- ROGERS: Matthew Spencer [P. 1905]; 5 Drake Street, C.-on-M., Manchester.
- JONES: Herbert [P. 1907]; 25 Wellington Road, Whalley Range, Manchester.
- ALLEN: Newstead Adams, P.A.S.I. [P. 1902]; 3 Beechwood Road, Aigburth Road, Liverpool.
- BARNES: Vernon Stuart [P. 1904]; 24 Cliffe Road, Strood, Kent.
- BLOUNT: Walter Stanley [P. 1907]; 76 Wendell Road, Shepherd's Bush, W.
- BLOXAM: Owen Astley [P. 1903]; 70a Basinghall Street, E.C.
- BOX: Charles Wilfrid [P. 1905]; 16 Old Building, Lincoln's Inn, W.C.
- BROWN: Alexander Wood Graham [P. 1903]; 3 Chester Street, Edinburgh.
- BRUNATI: Luigi [P. 1907]; Marsh Road, Pinner, Middlesex.
- CARTER: William [P. 1905]; 5 Murton Street, Sunderland.
- DAIGLEISH: Kenneth [P. 1905]; 165 Fenchurch Street, E.C.
- DANN: Wilfred [P. 1907]; Shears Green, Gravesend.
- GARBUTT: Wilfred Thomas [P. 1905]; 7 Blenheim Mount, Bradford.
- GIBSON: Edmund Herbert [P. 1904]; 5 Beech Grove, Harrogate.
- HEBBLETHWAITE: Bernard Robin-on [P. 1908]; "Rossmore," Hayne Road, Beckenham.
- HEDLEY: Gerald Montague [P. 1905]; 34 Beverley Terrace, Cullercoats, Northumberland.
- HILTON: Reginald Musgrave [P. 1900]; 14 Southwell Gardens, South Kensington, S.W.
- HOOPE: Charles Owen [P. 1905]; 58 Penywern Road, Earl's Court, S.W.
- HORNIMAN: John Henry [P. 1905]; 23 Robertson Street, Hastings.
- HULBERT: Francis Seymour, B.A. Cantab. [P. 1907]; 50 Charlewood Street, Belgrave Road, S.W.
- JENNER: Thomas Gordon [P. 1906]; 3 George's Place, Bathwick Hill, Bath.
- KNOWLES: Benjamin [P. 1906]; 10 Fernhill Road, Bootle, Liverpool.
- LEAHY: William James [P. 1900]; 4 Woodland Road, New Southgate, N.
- LEECH: William Leonard Boghurst [P. 1905]; "Ingle-neuk," Copdock, near Ipswich.
- LUSHBY: Arthur Milner [P. 1905]; Portchester House, Fareham.
- PETERS: Kershaw [P. 1907]; 51 Mexfield Road, East Putney, S.W.
- RIDLEY: Basil White [P. 1906]; Edgmont, Derby Road, Nottingham.
- RIDLEY: Geoffrey William [P. 1906]; Edgmont, Derby Road, Nottingham.
- SHEPHERD: Harold Joseph [P. 1906]; "The Bryn," Darnall, Sheffield.
- STANLEY: Joseph Weston [P. 1903]; 2 Hyde Place, C.-on-M., Manchester.
- SUTTON: Cecil Alfred Leonard [P. 1904]; Grove Avenue, Southey Street, Nottingham.
- THOMPSON: William Harding [P. 1905]; Thornbarrow Mead, Windermere.
- WEBSTER: Francis Poole [P. 1905]; c/o T. H. Robinson, Esq., 17 York Street, Sheffield.

Exemptions from the Intermediate Examination.

The following candidates, who had attended the Four-year Course of the A.A. School of Architecture, were granted exemption from sitting for the Intermediate Examination, and have been registered as *Students R.I.B.A.*:—

- ADAMS: Maurice Spencer Rowe [P. 1904]; "Edenhurst," Bedford Park, Chiswick.
- POCOCK: Percy Willmer, Jun. [P. 1905]; "The Beeches," Egham, Surrey.
- TROUP: Francis Gordon [P. 1907]; 26 Uxbridge Road, Ealing, W.

Final and Special.

The Final and Special Examinations, qualifying for candidature as *Associate R.I.B.A.*, were held in London from the 24th June to the 2nd July. Of the 132 candidates examined, 76 passed, and 56 were relegated to their studies. The successful candidates are as follows:—

[The initials "P." and "S." signify *Probationer* and *Student* respectively.]

- ADAMS: Percy Tidswell [P. 1900, S. 1906]; 53 and 54 Chancery Lane, W.C.
- ANDERSON: Herbert Cooper [P. 1898, S. 1905]; 3 Longford Street, Heywood, Lancs.
- ANTCLIFFE: William Charles [*Special Examination*]; 5 Clonmel Road, Fulham, S.W.
- BARTHOLOMEW: Benjamin Vincent [P. 1905, S. 1906]; 21 East Avenue, Walthamstow, N.E.

- BELL: William [P. 1905, S. 1907]; 12 Lawside Road, Dundee, N.B.
- BIXNING: Alan [P. 1902, S. 1905]; 101 Shooter's Hill Road, Blackheath, S.E.
- BODDINGTON: Henry, Jun. [P. 1905, S. 1906]; 32 Emperor's Gate, S.W.
- BOSS: Albert Henry [P. 1904, S. 1907]; 108 Sewardstone Road, Victoria Park Gate, N.E.
- BRAZIER: Frederick Henry [P. 1904, S. 1906]; 15 Queen's Road, Hale, Cheshire.
- BRISTOW: Christopher [P. 1904, S. 1905]; 210 Gipsy Road, West Norwood, S.E.
- BROUGH: Wilfred James [P. 1902, S. 1904]; 29 Alexandra Villas, Finsbury Park, N.
- CAMINESKY: Peter [P. 1903, S. 1905]; "Plevna," 45 Norfolk Road, Maidenhead.
- CARNELLEY: Herbert [P. 1901, S. 1904]; 24 Parliament Hill, Hampstead, N.W.
- CARUS-WILSON: Charles Denny [P. 1904, S. 1908]; Sundridge Rectory, Sevenoaks, Kent.
- CATHCART: William D'Arcy [P. 1906, S. 1908]; 76 Bishops Road, Bayswater.
- COCKRILL: Gilbert Scott [P. 1901, S. 1906]; Post Office Chambers, Gorleston.
- CONSTANTINE: Harry Courtenay [P. 1906, S. 1907]; c/o A. Burr, Esq., 85 Gower Street, W.C.
- COOK: Vincent Corbet [P. 1898, S. 1901]; Summerleigh, Clark Road, Wolverhampton.
- CORFIELD: Claude Russell [P. 1902, S. 1905]; 11 Duchess Road, Edgbaston, Birmingham.
- DAHL: John Love Seaton [P. 1901, S. 1902]; 30 Green-croft Gardens, South Hampstead, N.W.
- DICKINSON: William Francis [P. 1902, S. 1904]; 40 Cambridge Street, S.W.
- DOD: Edwin James [P. 1901, S. 1903]; D 16, Exchange Buildings, Liverpool.
- EDWARDS: Albert Lionel [P. 1906, S. 1907]; 26 Griffiths Road, Wimbledon, S.W.
- EDWARDS: Alfred Hewlett [P. 1901, S. 1907]; 26 Winchester Avenue, Leicester.
- FERRIER: James Straton [P. 1903, S. 1907]; 41 Heriot Row, Edinburgh.
- FITZGERALD: George Edmonds [P. 1905, S. 1906]; 32 Speldhurst Road, Bedford Park, W.
- FLEMING: Herbert Sidney [P. 1904, S. 1906]; 34 Thanet Road, Erith.
- GEEN: Charles Alfred [Special Examination]; 155 High Street, Lewisham, S.E.
- GUTTERIDGE: Reginald Fowler [P. 1901, S. 1904]; 9 Portland Street, Southampton.
- HAGELL: Frederic William [P. 1905, S. 1907]; 32 Harborton Road, Whitehall Park, N.
- HARVEY: David [P. 1903, S. 1908]; 29 Ena Street, North Boulevard, Hull.
- HENDERSON: Andrew Graham [P. 1903, S. 1905]; c/o Messrs. Honeyman, Keppie & Mackintosh, 4 Blythswood Square, Glasgow.
- HOTZ: Roland [P. 1906, S. 1907]; 122 Mallinson Road, Wandsworth Common, S.W.
- JARVIS: John Weston [P. 1900, S. 1901]; 16 Greenhill Crescent, Harrow.
- JENKINSON: John Mansell [P. 1899, S. 1905]; 35 Wostenholme Road, Sharrow, Sheffield.
- KAULA: William [P. 1905, S. 1907]; 29 Wetherby Mansions, Earl's Court Square, S.W.
- KENCHINGTON: Herbert [Special Examination]; 14 Great James Street, Bedford Row, W.C.
- LUDLOW: William Henry [P. 1889, S. 1907]; 83 Elspeth Road, Clapham Common, S.W.
- LUSK: Thomas Younger [Special Examination]; 93 Shepherdess Walk, N.
- MCLEAN: Archibald John Chattan [P. 1904, S. 1907]; 82 Beaconsfield Villas, Brighton.
- MADELEY: Charles Stanbury [P. 1904, S. 1906]; 109 Aston Lane, Perry Barr, Birmingham.
- MAIR: John Thomas [Special Examination]; Wellington, New Zealand.
- MAXWELL: Francis John McCallum [P. 1905, S. 1906]; 81 Fielding Road, Bedford Park, W.
- MELLOR: Wilfrid Law [P. 1902, S. 1904]; 31 Cawdor Road, Fallowfield, Manchester.
- METCALF: Cecil Broadbent [P. 1902, S. 1905]; 23 St. Andrews Place, Bradford, Yorks.
- MITCHELL: George Arthur [Special Examination]; 13 Faraday Road, Acton, W.
- MOLE: Herbert William [P. 1904, S. 1907]; 49 Warrington Park, Newcastle-on-Tyne.
- MORGAN: Ernest Edmond [P. 1905, S. 1908]; 34 Weston Park, Crouch End, N.
- MORRIS: Henry Seton [Special Examination]; 36 Cambridge Street, Eccle-ton Square, S.W.
- NICHOLSON: Robert Hedley [Special Examination]; 43a Hawarden Crescent, Sunderland.
- ORR: Robert [P. 1900, S. 1906]; Longfleet, Poole, Dorset.
- PETCH: Ernest Scott [P. 1901, S. 1905]; Stepney Rise, Scarborough.
- PETT: Harold Milburn [P. 1902, S. 1905]; 28 Stanford Road, Brighton.
- PIERCE: Robert [P. 1904, S. 1906]; Gothic Villa, Addison Road North, W.
- PURCHON: William Sydney [P. 1905, S. 1907]; The University, Sheffield.
- RAINFORTH: Sydney H. [P. 1898, S. 1901]; 46 Rylett Crescent, Ravenscourt Park, W.
- ROSE: Charles Holland [P. 1904, S. 1906]; Ethandune, Parkside Gardens, Wimbledon.
- ROSS: Hugh Alexander [P. 1904, S. 1907]; 114 Godolphin Road, Shepherd's Bush, W.
- SAWYER: Harold Selwood [P. 1900, S. 1903]; 40 Tweedy Road, Bromley, Kent.
- SECCOMBE: Henry Edward [P. 1900, S. 1904]; Rutherford, Curzon Road, Weybridge.
- SEDDON: Joseph [P. 1906, S. 1907]; 8 Buckingham Street, Strand, W.C.
- SHAPLAND: Henry Percival [P. 1906, S. 1907]; 45 Canonbury Square, N.
- SIMPSON: Cecil Hamilton [P. 1904, S. 1905]; 20 Keswick Road, Putney, S.W.
- SMITH: Frederick Radford [Special Examination]; 34 Buxton Gardens, Acton Hill, W.
- STEWART: Douglas William [P. 1902, S. 1907]; 174 West Green Road, Tottenham.
- TASKER: William Watt [P. 1903, S. 1907]; 23 Ripon Gardens, Jesmond, Newcastle-on-Tyne.
- TURNBULL: Albert [P. 1904, S. 1906]; The Oaks, Sunderland.
- UNWIN: Henry [P. 1900, S. 1904]; 33 Hodge's Street, Wigan.
- VEY: George, Jun. [P. 1907, S. 1908]; 48 Thornton Avenue, Chiswick, W.
- WALLER: Herbert [Special Examination]; 123 Gower Street, W.C.
- WARLOW: Herbert Gordon [P. 1902, S. 1905]; Sharrow Knoll, Sheffield.
- WATT: John Douglas Dickson [P. 1902, S. 1906]; Well-side Place, Falkirk, N.B.
- WILLIAMS: Geoffrey Hyde [P. 1898, S. 1903]; 25 Grove Road, Windsor.
- WILLS: John Bertram [P. 1902, S. 1904]; 8 Highbury Terrace, N.
- WINGROVE: George Christopher [P. 1904, S. 1906]; c/o Messrs. Cackett & Burns Dick, Pilgrim House, Newcastle-upon-Tyne.
- YOUNG: John Girtrig [P. 1903, S. 1905]; Ashburn, Alloa, N.B.

The following table shows the number of failures among the 56 relegated candidates in each division of the Final Examination:—

I. Design	44
II. Principles of Architecture	50
III. Building Materials	16
IV. Principles of Hygiene	22
V. Specifications	25
VI. Construction, Foundations, &c.	40
VII. Construction, Iron and Steel, &c.	28

LONDON BUILDING ACTS AMENDMENT.

Decision of the House of Commons Committee.

The Committee of the House of Commons, under the Chairmanship of Mr. J. J. Mooney, on the 28th June gave their decision on Part V. of the London County Council (General Powers) Bill, under which it is proposed to amend the London Building Acts 1904 to 1908, with special reference to buildings of iron and steel skeleton construction, and to make regulations as to the use of reinforced concrete.

The Institute had petitioned against the Bill on the ground (1) that such matters should be dealt with by by-laws or regulations rather than by statutory enactments, which tend to stereotype a changing practice; and (2) that in any case such enactments should be limited to the external and not extend to the internal structure of the buildings. The Institute's objections were supported by the Institution of Civil Engineers and the Surveyors' Institution, which had also petitioned against the Bill, and were concurred in by practically all the representative expert bodies in London. Mr. Freeman, K.C., and Mr. Lewis Coward, K.C., appeared in support of the Institute petition, and evidence on its behalf was given by Messrs. Edwin T. Hall [F.], James S. Gibson [F.], Wm. Dunn [F.] (who also represented the Concrete Institute), and J. Carmichael, Past-President of the Institute of Builders.

Up to the last day of the hearing the general impression was that the promoters had failed to justify their proposals. On the 29th June, however, the Chairman made known the Committee's decision by the following announcement:—"The Committee find the preamble of the Bill relating to Part V. proved, but they will require an amendment to be made to sub-clause 33 of clause 30, substituting for the Tribunal of Appeal an appeal to a Metropolitan Police Magistrate; and in sub-clause 34 they require the insertion of words providing for an appeal to the Tribunal of Appeal from the decision of the County Council. They further require alterations to be made in clause 33 so as to more clearly define the fees to be paid for alteration." To those who had carefully followed the proceedings before the Committee this decision came as a great surprise, especially in view of the fact that the Local Government Board had reported that the provisions of

the clauses were too rigid, and recommending their being carefully reconsidered. The Board had also reported against the appeal from the District Surveyor to the County Council, and in favour of a restriction on the conditions which the London County Council had power to impose if an application were made to waive any part of the Act. It is understood that what weighed most with the Committee was the evidence of Captain Hamilton to the effect that in the interest of public safety in case of fires it was expedient that the proposed enactments with respect to the internal construction of buildings should be sanctioned.

A full report of the proceedings before the Committee is given in *The Builder* of the 3rd July.

The Institute Petition to the House of Lords.

The Council have resolved to petition the House of Lords against the Bill, and a petition, the terms of which are as follow, has already been lodged:—

To the Right Honourable the Lords Spiritual and Temporal of the United Kingdom of Great Britain and Ireland in Parliament assembled:

The humble petition of the Royal Institute of British Architects under their Common Seal

Sheweth as follows:

1. A Bill (hereinafter called "the Bill") promoted by the London County Council (hereinafter called "the Council") has been introduced into and is now pending in your Right Honourable House intituled "An Act to empower the London County Council to construct railway sidings in the County of Surrey and to confer other powers upon that Council to make provisions with respect to sanitary matters to amend the London Building Acts to confer powers upon the Councils of the metropolitan borough of Southwark and the royal borough of Kensington and for other purposes."

2. The Preamble of the Bill recites inter alia that the erection of buildings in the Administrative County of London and the materials which may be used in such erection are regulated by the London Building Acts 1894 to 1908 and that it is expedient that those Acts should be amended as provided by the Bill.

3. The Bill is divided into Parts and Part IV. [Part V. of the Draft Bill] relates to the proposed amendment of the London Building Acts 1894 to 1908 which Acts are in the Bill referred to as "the principal Acts." Clause 22 of the Bill specifies in very great detail the provisions to be observed in the erection of buildings of iron and steel skeleton construction in the administrative county of London. The said clause extends to thirty-five sub-clauses and deals not only with the exterior walls of skeleton building construction but also with the construction of the interior of such buildings. Clause 23 of the Bill empowers the Council to make regulations as to use of reinforced concrete in the construction of buildings.

4. The Royal Institute of British Architects was founded in the year 1834 and by various Charters constituted a body politic and corporate with perpetual succession and a common seal for the purpose of forming an institution for the general advancement of architecture and for promoting and facilitating the

acquisition of the knowledge of the various arts and sciences connected therewith. Under the provisions of their Charters your Petitioners' Institute has taken into alliance twenty-one architectural societies acting in the principal cities and towns in the United Kingdom and in the British Empire.

5. Your Petitioners' Institute as the only chartered body of architects in the United Kingdom accepts and claims as part of its responsibility and public duty the function of tendering advice to the Government and the Council on all legislation by-laws and regulations pertaining to architecture and building generally and under subsection (4) of section 164 of the London Building Act 1894 notice has to be given to the Institute of all by-laws proposed by the Council "before applying to the Local Government Board for the allowance of any such by-laws." The advantage to the community of having at its disposal the technical advice and experience of a body of experts is admitted on all hands and it has been the practice of Government Departments as well as of the Council to avail themselves of this advice and experience and the principle is recognised not only in the Metropolis Building Act 1855 but also in section 16 of the Metropolis Management and Building Acts Amendment Act 1878. Since then your Petitioners have been consulted by the Council in connection with among others the Bills for the London Building Act 1894 and 1905 and the advice tendered by your Petitioners has led to many alterations which have become law.

6. Your Petitioners with other bodies representing the principal interests connected with building construction have had several conferences with the Council and its chief advisers both during the preparation and since the deposit in Parliament of the Bill on the provisions of clause 22 thereof and your Petitioners with these other bodies have devoted much care and consideration to those provisions and submitted to the Council amendments which in their opinion are necessary to be made therein in the interest of those mainly affected by the operation of the building laws. Notwithstanding the representations made to the Council by these technical bodies the Council have not to any material extent modified the proposals contained in clause 22 of the Bill.

7. Your Petitioners as representing the general interests of the profession of Architects in London and elsewhere allege that those interests are prejudicially affected by the Bill and they object thereto for the reasons with others hereinafter stated.

8. The provisions of clause 22 of the Bill are of such a character that it would be impossible to specify in detail within the limits of a Petition the many practical and technical objections of your Petitioners thereto and while setting forth certain objections to the said provisions your Petitioners respectfully ask that they may be allowed to criticise in detail before the Select Committee to whom the Bill may be referred the said provisions affecting their rights and interests which they submit are undesirable in the public interest and to refer to the amendments prepared and submitted by them to the Council and to support the same. If owing to the change of mode of erecting certain classes of buildings any amendment of the principal Acts is required your Petitioners submit that it will meet all such requirements if the provisions of clause 22 of the Bill are limited to the construction of enclosing walls *i.e.* external walls leaving the details of interior con-

struction to be dealt with as at present. Your Petitioners strongly object to the wide provisions of clause 22 which deal with the construction of the whole building and submit that if sanctioned as proposed they will in their operation restrict or hinder or render unnecessarily costly the erection of important buildings in London.

9. Your Petitioners are of opinion that in view of the improvements from time to time made in the design and details of construction of metal skeleton framework buildings it is most desirable in the interests of the public that the minute details of this class of building construction contained in clause 22 should not be stereotyped in an Act of Parliament and submit that all that is required is that in lieu of that clause provision should be inserted in the Bill empowering the Council to make regulations to be approved by the Local Government Board after hearing parties interested in respect of the matters contained in clause 22.

10. Your Petitioners also object to clause 22 inasmuch as a clear and easily understood definition of a skeleton metal framework building is not contained therein. If that clause is sanctioned your Petitioners submit that such buildings should be therein defined to mean buildings the whole of the enclosing walls of which are constructed of skeleton metal framing in conjunction with the enclosing walls prescribed in subsection 11 of clause 22. If the clause is passed as it now stands many of its provisions would apply to buildings in which skeleton steel framework is used in conjunction with enclosing walls of brickwork of the thicknesses prescribed in the London Building Act 1894 and your Petitioners and the Council are satisfied that the existing law is amply sufficient for the regulation of such buildings.

11. When the Bill was under consideration by a Select Committee of the House of Commons the Council by their Counsel and witnesses gave an assurance that whenever metal skeleton framework in conjunction with walls of brickwork of the thicknesses prescribed in the London Building Act 1894 was used in constructing external walls buildings might be erected subject to the provisions of the principal Acts only and that amendments would be inserted in the Bill to provide for this. The Bill as introduced into your Right Honourable House however has not been amended in this respect and your Petitioners respectfully ask that the Council be compelled to carry out the assurance given at their instance in the House of Commons.

12. Your Petitioners further object to the proposed limitation of the power of appeal to the Tribunal of Appeal from decisions of the Council as provided in subsection (35) of clause 22 of the Bill and submit that the appeal is really of no value unless parties have a right of appeal in respect of any of the requirements of the Council under that clause.

13. Subsection (3) of clause 23 provides that no regulations made by the Council in respect to the use of reinforced concrete in the construction of buildings shall have any force or effect until they have been allowed by the Local Government Board. Your Petitioners submit that provisions should be inserted in that clause authorising parties interested to be heard before the Local Government Board on any such proposed regulations before the same are allowed.

14. Your Petitioners submit that the provisions of Part IV. of the Bill are open to serious objection both in principle and in their details and that the same

should not be sanctioned except after full inquiry into the whole subject.

15. There are other provisions in Part IV. of the Bill to which your Petitioners object as prejudicial to their rights and interests.

16. The preamble of the Bill so far as it relates to the matters aforesaid cannot be substantiated by argument or evidence.

Your Petitioners therefore humbly pray your Right Honourable House that the Bill may not pass into a law as it now stands and that they may be heard by their Counsel Agents and Witnesses against the Preamble and such of the clauses and provisions of the Bill as affect their rights and interests and in support of other clauses and provisions or their protection and that they may have such further and other relief in the premises as to your Right Honourable House may seem meet.

And your Petitioners will ever pray &c.

Limitation of Period of Service of Members of the Council : Result of Poll.

At the Special General Meeting (By-laws) held Wednesday, 21st July, the Secretary announced the results, as reported by the Scrutineers, of the poll taken by voting-papers on the question of the adoption of the following resolution passed at the Meeting of the 14th June—viz. "That one-sixth of the Ordinary Members and Associate Members of the Council shall retire each year, and shall not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of equality of seniority the rotation to be decided by lot." The results were as follows, Fellows only voting :—

Total votes received	390
Affirmative votes for the Resolution	235
Negative votes against	154
Paper spoiled	1

The Scrutineers were Mr. Herbert A. Satchell [F.], Chairman; Mr. A. R. Jemmett [F.], and Mr. Herbert Shepherd [A.].

The Institute Scale of Charges.

The following correspondence has been handed in for publication :—

17 Victoria Street, Westminster : 16th July 1909.

The Secretary R.I.B.A.—

DEAR SIR,—The question has arisen in one case I have had to deal with as to the true intention of clause 3. As the matter appears to be one which affects many similar cases, I shall be glad if you will kindly let me have an official view of the real intention of the clause referred to.

Is an architect entitled to charge more than 5 per cent. in cases of alterations and additions to buildings where the cost of the work exceeds £1,000?

It is contended by my clients in this particular

case that an architect can only charge more than 5 per cent. where the total cost of the works in alterations and additions is less than £1,000.

Yours faithfully,

HENRY W. BURROWS.

9 Conduit Street, W. : 21st July 1909.

Henry W. Burrows, Esq.—

DEAR SIR,—In reply to your letter of the 16th inst., there is no doubt that you are right, and your clients are wrong in their interpretation of clause 3 of the Schedule of Charges. Under that clause an architect is clearly entitled to charge more than 5 per cent. in cases of alterations and additions to buildings where the cost of the work exceeds £1,000. Faithfully yours,

IAN MACALISTER,
Secretary R.I.B.A.

Council Appointments to Standing Committees.

The following appointments to Standing Committees have been made by the Council under By-law 46, viz. :

ART COMMITTEE.—Sir George Frampton, R.A. [H.A.], Sir Aston Webb, C.B., R.A. [F.], Messrs. John Belcher, R.A. [F.], T. Raffles Davison [H.A.], and W. A. Forsyth [F.].

LITERATURE COMMITTEE.—Messrs. Frank Baggallay [F.], John Bilson, F.S.A. [I.], J. D. Crace [H.A.], S. K. Greenslade [A.], and G. H. Fellowes Pryne [F.].

PRACTICE COMMITTEE.—Messrs. Ernest Flint [F.], J. Douglass Mathews [F.], John Murray [F.], H. A. Satchell [F.], and W. G. Wilson [F.].

SCIENCE COMMITTEE.—Messrs. R. J. Angel, M.Inst.C.E. [A.], George Hornblower [F.], F. N. Jackson [H.A.], J. H. Markham [A.], A. W. Moore [F.].

The German Garden City Association at the Institute.

A reception in honour of the visit to England of members of the German Garden City Association was held by the President and Council of the Institute on Tuesday evening the 13th inst. Through the exertions of the Institute Town Planning Committee, who had charge of the arrangements, an interesting collection of drawings mainly dealing with town-planning was displayed in the Library rooms. Among them were water-colour drawings by the President, including picturesque views of Continental towns, chiefly in Germany. An interesting scheme for a Boys' Garden City was exhibited by Mr. W. A. Pite. Several large strainers of designs for town improvements were shown by Messrs. Lanchester and Rickards, including a drawing illustrating the idea of recessing buildings at intervals to allow the planting of groups of trees on the lines suggested by M. Hénard for the "boulevard à redans" in Paris. Messrs. Barry

Parker and Raymond Unwin exhibited a number of the original drawings prepared for the Letchworth and Hampstead Garden Suburb schemes; these attracted the particular attention of the guests from the Fatherland, where the idea of each family occupying a separate building is not yet generally accepted. A selection of drawings made for Mr. Inigo Triggs' book on Town Planning was also shown, including a series of plans tracing the development of ancient and modern towns, drawings illustrating the various types of traffic, architectural and other plans, and a series of plans and photographs bearing on the architectural treatment of streets. Sir Aston Webb's plan of the new approaches to Buckingham Palace in connection with the National Memorial to Queen Victoria, and plans, elevations, and views showing his proposed laying-out of the Durbar site at Delhi, India; Mr. Waterhouse's scheme for great cross thoroughfares in London; Messrs. Colcutt and Hamp's fine drawing presenting their idea of a street bridge spanning the river between Charing Cross and Waterloo, and other interesting drawings, were on view.

The following is a translation of the President's address of welcome, which was read in German by the Secretary:—

"In tendering you the heartiest welcome to the home of our Institute I desire to express the sincere pleasure it gives us, as architects, to meet representatives of a country which has done so much throughout its notable history to foster the art of architecture, and has in recent years shown such activity in the organisation of civic development in its best forms.

"I also take this opportunity of acknowledging our indebtedness to Germany for the valuable work that has been done towards determining the bases on which the art of town planning should rest. One recognises that here in England we have still much to do before our methods reach the stage at which you have arrived; but, despite this, one may venture to think that your visit will prove interesting on account of the differences both in methods and in ideals, as exemplified in two countries which, though closely allied, have developed under different conditions.

"The operation of the laws in land ownership, while simplifying the problem in this country, has retarded the advance of the municipalities toward the dominant position that they hold in Germany, and consequently these have not at present the trained and organised methods that yours possess. On the other hand, the large proportion of land coming into the open market here has facilitated the provision of dwellings reasonably well suited to the demand for them. One naturally regrets that from the artistic and the hygienic points of view these city extensions are often far from the desired ideal, though there has, however, been an encouraging improvement in these respects during the last few years. Even where you could not approve the design of many of our sub-

urban houses, I cannot but think that the small but well-ordered garden plots now showing their wealth of summer flowers must have created a favourable impression. The love of flowers and of their cultivation is to the Englishman almost as much as the art of music to your compatriots. You have doubtless noted much in our practice that to your trained eyes must have appeared crude and imperfect, but I venture to hope that you are at the same time finding points of interest, and that your studies here may not be without profit to you."

Herr Rehorst, architect to the Town Council of Cologne, made a graceful reply in German, and the rest of the evening passed in making a tour of the rooms and inspecting the various exhibits.

Town Planning and Housing Exhibition.

This exhibition, now being held at the Hampstead Garden Suburb, was formally opened on the 14th inst. by the Right Hon. Alfred Lyttelton, K.C., M.P., and will remain open daily from noon to 9 p.m. until the 7th August. Admission is free on presentation of visiting card.

The exhibits include plans, photographs, and models illustrative of the origin and development of town planning and city development in this country, and of its practical and artistic value. The first efforts of the employer seeking to provide improved conditions for his worker by the erection of a few "model" cottages are shown by picture and plan as the forerunner of the larger work of the makers of industrial villages such as Port Sunlight and Bournville. The creation of garden suburbs by the combined effort of corporate bodies is represented pictorially by plans and models, and by the actual garden suburb at Hampstead. Various houses and cottages in the suburb are open for inspection, some of them furnished to illustrate what is possible in the way of combining utility with beauty in home furniture. Specimen gardens on the estate are on view, while a piece of unused land has been laid out by the Vacant Land Cultivation Society to show that even an unused plot may become a valuable asset in the hands of the enlightened citizen. The educative value of town planning is demonstrated within the Exhibition Hall by models and photographs of school-gardens and children's play-grounds, while on the suburb itself the suggestion is continued by the adaptation of vacant spaces for children's recreation. That the step forward towards improved city development is an international one is emphasised by the many exhibits collected from abroad. A model of a German Garden City vies with Home counterparts, while plans and photographs from Düsseldorf, Nuremberg, Wiesbaden, Cologne, &c., exemplify the rapid growth of the movement in Germany. The Garden City Association in France has sent a contribution, and many other plans and illustrations have been gathered from the Continent, the Colonies, and the United States of America.

A series of lectures is in course of delivery at the Exhibition setting forth the possibilities of Town Planning and the influence of city conditions on citizenship, child life, education, and national efficiency. On the opening day the President of the Institute, Mr. Ernest George, presided at lectures on Town Planning delivered by Professor Beresford Pite [F.] and Mr. Raymond Unwin. On Wednesday, 28th July, Mr. Wm. Woodward [F.] is announced to lecture at 4 p.m. on "Architecture and Town Planning"; Saturday, 31st July, at 8 p.m., Mr. Edward Lovett on "The Educational Value of Public Gardens and Parks"; Wednesday, 4th August, at 3.30, Councillor J. S. Nettlefold on "A Practical Town"; Wednesday, 4th August, at 8 p.m., Mr. S. K. Radcliffe on "The Story of London."

Continental Town Planning Tour.

The Committee of the National Housing Reform Council is arranging a second Continental Town Planning Tour for September next. This tour will comprise visits to several cities in which municipal town planning powers have been exercised, including Rheims (and possibly Nancy), Stuttgart, Ulm-on-the-Danube, and Munich. The party will be limited to municipal representatives, architects, and surveyors, and members of the National Housing Reform Council. Arrangements will be made for explanations of the special features of each scheme to be given by experts. The co-operation of leading men in the cities to be visited has already been promised, and every effort is to be made to render the tour one of real practical value. An endeavour will also be made to secure the voluntary help of English-speaking guides in each town visited, so that the language difficulties may be largely obviated and the value of the tour enhanced. The details of the route are not yet settled, but the party will leave London on Friday, 10th September, and will leave Munich on the return journey (*via* Paris) on 18th September. The cost of the tour, to cover rail fares and hotel expenses, will be £12 12s. inclusive.

The object of the National Housing Reform Council in undertaking the responsible task of organising the tour is to prepare Municipal Councils for the new responsibilities which the passing of the Housing and Town Planning Bill will place upon them. It is hoped, therefore, that many leading Municipal Councils will appoint representatives to take part in this visit, and that a number of architects and surveyors will also accompany the party. Applications for tickets should be made to Mr. Henry R. Aldridge, Secretary, 18 Dulverton Road, Leicester.

Records of Ancient Buildings of the British Isles.

Mr. Wilfrid I. Travers [A.], Hon. Secretary of the Architectural and Topographical Society, asks

the attention of members to the following appeal which is being made by the Council of his Society, the Earl of Plymouth [H. A.], Lord Avebury, Sir Aston Webb, C.B., R.A. [F.], Messrs. Francis Bond [H. A.], J. A. Gotch, F.S.A. [F.], Enslie J. Horniman, M.P., Thos. G. Jackson, R.A., Mervyn Macartney [F.], and Edward S. Prior [F.]:—

May we venture through your columns to appeal for help in a work which has been described as one of national interest—namely, that of making complete historical records of the ancient buildings of these islands, from the introduction of civilisation to the year 1800, which has been undertaken by the Architectural and Topographical Society?

The need for such a work has been admitted on all sides, and ought to have been undertaken long ago, for it is now almost impossible, after a century or more of destructive so-called "restoration," to obtain exact information as to the previous condition of much of our historic architecture.

Although this Society is unable to act in any manner directly calculated to prevent such destruction, yet, by recording precisely, and in detail, the present state and the nature of the buildings and the monuments, it is able to some extent to counteract the effects of such vandalism, and owing to the low rate of our subscription (*i.e.* 10s. 6d. per annum), and the consequent accessibility of our publications to all, there is a potential educational value in our work.

These considerations form an overwhelming argument in favour of so low a subscription, but it is obvious that the expenses of printing and publishing records of buildings with sufficient illustrations fully to explain the text must be practically the same whether the circulation be 200 or 1,000; therefore the ratio of revenue to expenses must, until the subscription list approaches the latter figure, be too low to make the society self-supporting.

On these grounds alone we might venture to trouble you and, through you, the public: but we would, at the same time, lay additional stress on the following points:

(1) Since the foundation of the Society, rather more than twelve months ago, complete accounts of the buildings in seventeen parishes have been published.

(2) The value of the work has been endorsed by the fact that many of the leading societies interested in this subject are now subscribing.

(3) There are at present some twenty parishes partly completed, in addition to those already published, and several more are definitely promised. The fact that the Society can obtain work of this nature entirely gratuitously shows how greatly the need for such records is felt by those who have expert knowledge of the subject.

(4) The recent appointment of Royal Commissions to make an inventory of the ancient monuments of England, Scotland, and Wales shows that the State appreciates the need for such work; and by its terms of reference, the Commission is only intended to make an inventory, and does not in any way cover the ground of this Society's labours.

(5) The other part of the Society's work, which includes the collection of carefully made record drawings, notes, and photographs, &c., is progressing, and a considerable number of such records are now either promised or are already in our possession.

(6) All the work done for the Society is purely honorary—therefore its funds are expended entirely on the work, and not in any way upon the workers.

(7) A large sum of money is subscribed annually towards the furtherance of similar work in the ancient world of Egypt and Rome, and it would be unworthy of our national traditions should researches into the history of our own country fail for want of funds.

The minimum sum of £500 is required to ensure the effective continuation of the work of the Society until such time as the annual subscription list shall be equal to the necessary disbursements: a further contribution would enable the rate of progress to be made more consonant with the amount of the work to be done.

In conclusion we would appeal to all who take an interest in the history of their country to help the work in some degree. Subscriptions and donations should be made payable to the Society, and crossed "London and County Bank."

All communications should be addressed to the offices of the Society at 33 Old Queen Street, Westminster.

Donations will be treated as subscriptions, and donors of half a guinea or more will receive the Record for the current year, whilst those of seven guineas and upwards will be entered on the Society's list of life members.

Fire Prevention at St. Paul's Cathedral.

The Dean and Chapter of St. Paul's are appealing to the Corporation of the City of London and the principal Guilds for aid in securing the Cathedral from risks from fire. They point out that, crowded in as it is by warehouses, the Cathedral has always been open to grave risks from fire; but, as the buildings around have been more than doubled in height, the risk of burning materials being blown against the lower roofs and the dome has increased in proportion. The London Fire Brigade could do nothing, as their power of pressure does not allow them to throw water to a greater height than 70 or 80 feet. In case of fire, therefore, when once the Cathedral's own tanks were exhausted, the fire would have to burn itself out. Mr. Mervyn Macartney, Surveyor of the fabric, has prepared a scheme of high pressure by which both roofs and dome can be covered from the stone gallery. Provision will also be made for making the crypt fire-proof and removing therefrom the present workshops with their inflammable materials. The cost of these preventive measures is estimated at £5,000, and it is towards making up this amount that the Dean and Chapter are appealing for assistance. They have recently had to expend £25,000 on structural repairs, one half of which will be met by the Ecclesiastical Commissioners if the other is forthcoming. The upkeep of the Cathedral costs about £3,000 a year.

The late Mr. F. H. Williams [I.]

Frederick Henry Williams, *Associate*, elected 1878, who died on the 25th ult., aged sixty-six years, was born in London and received his education at Chatham House School, Ramsgate. Afterwards—

in 1861—he was articled to Mr. Herbert Williams, surveyor to the Drapers' Company and architect of the buildings in Throgmorton Street, containing the company's court-room and offices, since pulled down. In 1867 he entered the office of Mr. Frederick William Porter and worked on the drawings for Negretti & Zambra's new buildings at Holborn Circus and for the Union Bank in Chancery Lane. Mr. Williams left Mr. Porter in 1872 and became assistant in the office of the City Architect, Guildhall, and remained in it until his recent death, assisting Sir Horace Jones, Mr. Alexander M. Peebles, Mr. Andrew Murray, and Mr. Sydney Perks, principally in work relating to the several City markets. He was an excellent constructor, and his talent in mechanics, evinced in many very useful contrivances required in the new slaughter-houses, chill-rooms, &c., at the Deptford Market, was remarkable. It may be mentioned that he built an organ of three manuals with 970 pipes in his private house with his own hands, and, when removing, took the organ to pieces and rebuilt it in his new house. It is not often that great practical knowledge in mechanical science is associated with architectural ability in the same individual. His manner was perhaps somewhat brusque, but he was an honest, honourable fellow, most trustworthy and loyal. What he undertook to do he did with all his soul and mind. The writer can never forget his sympathetic help in times of difficulty. During his last illness of some six or seven months he suffered greatly. Undergoing two operations, losing his left forearm, he bore all pain with characteristic cheerfulness and patience. He married Miss Onyon of Stone, in Kent—all architects and archaeologists know the beautiful church of St. Mary, Stone. He leaves a widow and a daughter.—A. MURRAY [F.]

Artistic Copyright : Mr. Simpson's Evidence : Erratum.

We are indebted to *The Builder* for calling attention to what it rightly terms an "enigmatical sentence" in Clause 8 of Mr. Simpson's evidence prepared for the House of Commons Committee on Artistic Copyright as printed in the *JOURNAL* for 12th June (p. 526). The sentence, it has to be explained, was correct in the prints supplied for the House of Commons, but in reprinting for the *JOURNAL* the word "Uselessness" was misprinted "Usefulness," and the error escaping detection the author's argument appeared completely stultified. As corrected the sentence reads: "*Uselessness* in the application of an art cannot be admitted as a basis for copyright, or the sculptor's caryatides, being essentially supporting pillars, would be denied protection, &c." As the *JOURNAL* record is the permanent one, it is important the matter should be put right, and an erratum slip will be issued with the last number of the volume, with instructions to the binder to insert it opposite the page where the mistake occurs.

REVISION OF BY-LAWS.

Adjourned Special General Meeting, 23rd June 1909.*

MR. JAMES S. GIBSON, *Vice-President*, in the Chair.

MR. MAX. CLARKE [F.], speaking on By-law 31, and referring to the resolution passed at the meeting of the 14th June—viz. "That one-sixth of the Ordinary Members and Associate-Members of the Council shall retire each year and shall not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of equality of seniority the rotation to be decided by lot"—pointed out that no indication was given in the resolution as to what proportion of Fellows and what proportion of Associates should be ineligible for re-election. As he read the resolution it meant that the four senior members on the Council should be ineligible. That might be that none of the Associates would retire. He suggested that the proportions respectively of Ordinary Members and Associate-Members should be stated.

MR. G. A. T. MIDDLETON [A.] said his idea when suggesting the By-law was that it should be one-sixth of the Ordinary Members and one-sixth of the Associate-Members.

MR. LEONARD STOKES [F.]: That means three Fellows and one Associate.

MR. MAX. CLARKE: It would be clear if we say one-sixth of each.

MR. STOKES: The word "retiring" in the resolution is wrong. The whole of the Council retire every year. It should state that one-sixth shall become ineligible.

MR. C. H. BRODIE [F.] thought the wording of the resolution was somewhat long and complicated; his own amendment,† which followed the exact wording of the previous paragraph, was short and to the point, and would produce exactly the same result.

THE CHAIRMAN said that he stated at the last meeting that the amendment, which became the substantive motion, should be drafted so as to be in conformity with the other By-laws.

The sense of the Meeting being taken on the point, it was agreed to make it one-sixth of each class, viz. three Fellows and one Associate.

MR. MAX. CLARKE suggested that if the words "shall retire each year" were omitted, the clause would read, "members of the Council shall not be eligible for re-election," and the matter would be perfectly in order.

MR. A. R. JENNETT [F.] said he had given notice at the last meeting of his intention to move an amendment that no Past President should be eligible to serve on the Council for more than three consecutive years, and he had been given to understand that he would be in order in bringing it forward when the Ordinary Members of the Council were being dealt with. His reason for the proposal was that he thought it very undesirable that a Past President should be on the Council for the rest of his life, which was likely to happen when so few Past Presidents were eligible. The Chairman at the last meeting pointed out that the reason for having Past Presidents on the Council was that there might be some particular matter on which the Past President had special knowledge which would be of value to the Institute. He thought a total of three years would be quite long enough for him to be on the Council to give them the benefit of his special knowledge. He therefore proposed that neither of the Past Presidents should be eligible to serve on the Council for more than three successive years.

MR. F. R. FARROW [F.] seconded.

MR. MAX. CLARKE asked by whom the Past Presidents were to be nominated. There was no indication given in Clause 32.

* See reports of proceedings at previous meetings of 24th May and 14th June, JOURNAL, 26th June, pp. 590-601.

† JOURNAL, 26th June, p. 596.

THE CHAIRMAN: They will go on the House List under By-law 32. There will be no contest. They will be nominated and elected in the same way as the Representative of the Architectural Association.

The proposition being put from the Chair was voted upon by show of hands and carried—20 for, 1 against.

No. 31 was then put as amended, and carried.

On By-law 32, the following amendments, suggested by MR. G. A. T. MIDDLETON [A.], were agreed to without discussion—viz.

Line 6 of Draft: The House List to contain names of "eight" Associates instead of "six."

Line 5 from end: Associate-Members to be "six," instead of "four," so as to accord with No. 27 as revised.

The concluding sentence to be altered so as to provide for the Council's remaining in office "until the last day in June."

On the suggestion of MR. H. SHEPHERD [A.] to omit sentence providing for the election of nine scrutineers at the Annual General Meeting, and in-ert "The Scrutineers shall be appointed by the Council," the proposition was moved by MR. JOHN SLATER [F.], seconded by MR. MAX. CLARKE [F.], and adopted.

MR. LEONARD STOKES pointed out that the By-law provided that the directions to members voting should be printed "on the back" of the voting list—they always appeared, however, on the front. He suggested, and the meeting agreed, to substitute the words "On this list" for "On the back of this list."

MR. MIDDLETON suggested the insertion of the following provision in the By-law: "No other document or communication besides the voting-papers, directions for their use, and the envelope within which they are to be returned shall be issued therewith."

The suggestion was adopted without discussion on the motion of MR. GEORGE HUBBARD [F.], seconded by MR. LEONARD STOKES [F.].

MR. H. SHEPHERD said it would be obviously a great advantage if the Council could see their way to enclose in the envelope with the House List a list of the attendances of members of Council at the various Council meetings. Many members in the country were quite ignorant of the amount of time and labour members of the Council devoted to the business of the Institute. A large majority of provincial members could never attend the London meetings, and knew very little of the work entailed on the Council.

THE CHAIRMAN pointed out that the Supplement to the JOURNAL, issued previous to the elections, contained a list of attendances of all the members of the Council and Standing Committees.

MR. SHEPHERD: But it is printed on the back page and may be overlooked. The paper, too, often gets mislaid, and is not at hand when the voting-papers arrive.

THE CHAIRMAN: If members take sufficient interest in the elections, they ought to preserve the paper.

MR. STOKES: It does not follow that the man who puts in the largest number of attendances is the best man.

MR. F. R. FARROW [F.] moved to insert "(b)" after "(a)" in line 11 in order that members may have an opportunity, if they think fit, of nominating a Past President in opposition to those nominated by the Council.

MR. MAX. CLARKE seconded. The intention of the By-law as drafted was that two Past Presidents should be put on the list, and only two, and those two would of necessity be elected. If the amendment were adopted, any Past President might be elected, and that seemed to be very desirable.

MR. HENRY T. HARE: If there were to be any contest, no Past President would consent to be nominated.

A MEMBER: The members generally probably would not know that some work had been done by the Council's nominees in which their further services would be useful, and if other candidates were put forward the Council's object would be defeated.

Mr. HUBBARD: It would be undignified for the Past Presidents to be in competition.

Mr. MARI GARRUTT: As a limitation has already been put on the term for which Past Presidents may serve, it seems hardly necessary to do anything more. Their position is not quite on all-fours with that of an ordinary member of the Council.

The amendment being put to the vote was defeated.

Mr. A. R. JEMMETT, referring to the number of members necessary to sign a nomination form, which the Draft proposed to increase from seven to twelve, moved that the number remain at seven as it stands in the existing By-law. Rather than increase the number he would decrease it to five, or even three. The policy of the Council should be to encourage outside members to nominate men whom they thought would be useful to the Institute. Out of the 2,000 members the Council generally could have but little knowledge as to who were the best men. The increase to twelve proposers was a retrograde movement, and tended to discourage members from taking an interest in the Council and in the Institute. At the Architectural Association candidates could be nominated by two signatories only. The number should be left as it stood before.

Mr. W. GILMOUR WILSON [F], seconded. It was just as easy to get twelve signatories as seven: it was only putting members to unnecessary trouble.

Mr. E. P. WARREN [F], supported the resolution. He knew of no other Society where the number was so large.

THE CHAIRMAN, replying to Mr. Brodie: It was thought advisable to increase the number of signatories, as members were increasing year by year.

The amendment that the number should remain at seven being put from the Chair was agreed to.

Mr. MAX CLARKE, pointing out that in the 5th line from the end, to accord with a previous resolution, "four" should be corrected to "six" so as to read "six Associate-Members," the Chairman stated that the correction should be made.

By-law 32 was then put as amended and carried.

By-law 33 was carried, subject to an alteration resolved upon in a previous By-law, that the period of office expire "on the last day of the following June."

Mr. MIDDLETON, speaking on No. 34, said that ten seemed an unnecessarily large quorum for a Council meeting. If by some extraordinary eventuality the Council were reduced to half its number, as was provided for in the preceding By-law, it would be exceedingly difficult to get a quorum of ten. He thought the number might remain six as before.

Mr. STOKES: Why cannot the Meeting accept the Council's recommendation on this point?

By-law 34 was then put and agreed to as printed.

Mr. FARROW, speaking on By-law 35, on a point of order, asked whether the resolutions of the Council referred to in By-law 24 were intended to come within the regulations referred to in By-law 35. By-law 24 referred to the published resolution of the Council under which any member who refused or neglected to be bound by the resolution was liable to reprimand.

THE CHAIRMAN: By-law 35 refers to the regulations made from time to time by the Council to carry into effect the By-laws and the general affairs of the Institute. By-law 24 is quite a separate and distinct matter.

Mr. FARROW said he wanted to help the Council out of a dilemma. By-law 24 had been passed, and the following resolution of the Council was published on page 10 of the current KALENDAR: "The Council is of opinion that members of the Royal Institute of British Architects should not publicly designate themselves otherwise than as 'architect' or 'architect and surveyor.'" The Council were therefore in this dilemma: they must either rescind that resolution, and stultify themselves by rescinding a resolution as soon as they were obliged to put it into operation, or they must put it into operation and reprimand, suspend, or expel a Past President, who in the last issue of the

JOURNAL described himself with thirteen different titles, and serve in the same manner several valuable members of the Council. He proposed By-law 35 should be amended to read: "Any regulation or alteration made by resolution for carrying into effect the Charter and By-laws and for the general management of the affairs of the Royal Institute and the conduct of the members of the Royal Institute except as otherwise provided by the Charter shall, &c." The resolution passed by the Council to regulate the conduct of the members of the Institute should be brought up before the General Meeting for confirmation. Then this which is printed on page 10 need not be brought up, nobody would take any notice of it.

Mr. HUBBARD: Surely it is what, in the opinion of the Council, is derogatory to professional character.

Mr. FARROW: It says, "or who shall refuse or neglect to be bound by a published resolution of the Council." If you do not enforce the resolution which you have already passed, you cannot very well enforce any other resolution.

Mr. BRODIE: Is it not the fact that after we have passed new By-laws the regulations must be amended to be in consonance with them?

Mr. ERNEST NEWTON [F]: The meaning of the resolution is so very evident that it is hardly worth troubling about.

The amendment finding no seconded, the By-law was put from the Chair and carried as printed.

Mr. MIDDLETON said he had a new By-law to suggest which he thought should follow No. 35. It was one which was decided* should be produced at this meeting. He suggested the following:—"No notices or other documents shall be issued to the various classes of members and Licentiates except such as are directed to be so issued by the Charters or By-laws or by resolution of a General Meeting or Council Meeting, except that in case of emergency the President and Honorary Secretary shall have power conjointly to act on behalf of the Council (the senior Vice-President taking the place of either of these who may be ill or absent), provided that their action be reported to and confirmed by the next Council or General Meeting."

Mr. STOKES said he thought Mr. Middleton had gone further than the meeting at which the resolution was passed intended. The idea, as he understood, was to prevent Vice-Presidents from issuing circulars.

Mr. GARRUTT: Surely there is no objection to the Vice-Presidents sending out circulars provided they do not go out with the voting-papers.

The Meeting agreed, upon the motion of Mr. LEONARD STOKES, seconded by Mr. JOHN MURRAY, that the matter be referred to the Council with a view to a By-law being drafted and submitted to the Meeting.

By-laws 36, 37, 38, 39, 40, 41, 42, and 43 were agreed to as printed.

By-law 44 being before the Meeting.

THE CHAIRMAN stated that the Council had made some amendments to this By-law since the Draft was issued, and that the Secretary would read the amended Draft.

Amended Draft By-law 44: "The Council shall annually appoint a Board of Architectural Education to deal with the education of pupils in architecture, and to conduct such examinations as are required by the Royal Institute under the provisions of any Act of Parliament or of the Charters and By-laws. The Board shall not exceed sixteen in number inclusive of the President who shall be an *ex officio* member, and shall consist of such subscribing members of the Royal Institute and such other persons as the Council may invite. The Council may, on the advice of the Board, invite other representative persons to act as advisory members of such Board. The Board shall have

* See Minutes of Meeting of 7th June. JOURNAL, 12th June, p. 561: "RESOLVED, by 62 votes to 26, That a By-law be drafted dealing with the powers of the officers of the Institute with regard to issuing circulars."

power to elect its own officers from its members and to draw up regulations for its procedure. The Board may conduct its own correspondence, but shall take no public action nor incur any pecuniary responsibility. The Board shall submit any scheme they may devise for education and examination to the Council for their consideration, and if and when the Council shall approve such scheme the Board shall have the supervision thereof and shall annually report to the Council thereon, and may submit any suggestions for variations thereof to the Council for their consideration. The scheme adopted by the Council and any variation thereof adopted by the Council from time to time shall be forthwith published in the JOURNAL of the Royal Institute. No such variation shall in any way prejudice any pupil in respect of any work done by him under the scheme existing previous to such variation. Every Student who has passed the examination for that grade, instituted or to be instituted by the Royal Institute, and shall have satisfied such other requirements as the Council may from time to time prescribe as applying to Students, shall be entitled to be registered as a Student of the Royal Institute of British Architects subject to such conditions and to such restrictions as to continuance as the Council may determine; and a Register of such Students shall be kept setting forth their names in the chronological order in which they have passed."

A suggestion that in line 2 the word "pupils" should be altered to "students" was agreed to.

Mr. JEMMETT said he wished to move an amendment limiting the duration of service of members of the Board, in the same way that the period of service of members of Council had been decided to be limited. He proposed that one-fifth of the retiring members shall not be eligible for re-election for a period of two years. This was much more important than in the case of Members of Council. Their notions of education were changing from year to year. New ideas were coming on so quickly that it was absolutely necessary to have men on the Board in touch with the most advanced thought on the subject. Unless some definite arrangement were laid down, members with old-fashioned ideas would be likely to stay on the Board for many years, and progress in this important matter would be retarded.

Mr. GARBUTT: This By-law takes the place of the existing By-law relating to the Board of Examiners. Unless it is proposed to bring something else forward there is no provision for the appointment of a Board of Examiners except in the indirect way suggested by the present proposal.

THE CHAIRMAN: It is a direct appointment annually.

Mr. GARBUTT: The proposal is that the new By-law should take the place of the existing By-law which is headed "Board of Examiners."

THE CHAIRMAN: There are two or three By-laws dealing with the Board of Examiners, and the proposal is to consolidate them into one.

Mr. HUBBARD: The difficulty at present is that there is a Board of Education and a Board of Examiners. These two Boards do not always hold precisely the same views or see eye to eye with each other. This resolution, which I think everybody will agree is by far the most important question before the Institute, has been drawn up to get over the difficulty and to amalgamate the two Boards into one homogeneous Board. Any variation of this particular By-law should be ventured upon with the greatest care, for a vast amount of attention has been already given to it. The suggestion that the members should retire at certain given dates may perhaps be a wise one; but in all matters of education continuity is of the first importance. Though to a certain extent retirement may be advisable, it certainly should be introduced with very great caution.

Mr. GARBUTT: I was not so much criticising as asking for information. I wanted to know whether it was proposed, now that this draft has been modified by the

Council, to bring forward anything with reference to the Board of Examiners, anything which shall be parallel to, or instead of, the present By-law 42, which provides for the appointment of Fellows of not less than five years' standing as examiners, and so on.

THE CHAIRMAN: No, it all disappears.

Mr. GOLDSMITH: Is it quite clear that it includes this? The By-law reads, "To conduct such examinations as are required by the Royal Institute under the provisions of any Act of Parliament or of the Charters and By-laws." Surely the conduct of the examinations must to a very large extent rest in the hands of the examiners. I do not see any reason for the idea that it should be done away with altogether. The Board of Examiners will still exist, but with the conditions improved.

THE CHAIRMAN: And under another name.

Mr. JOHN SLATER, Chairman of the Board of Examiners, said that the whole idea was to improve the status of the Board of Examiners. It was felt very strongly that the Board of Education should have some voice in the matter of the examinations. They occasionally made suggestions, but should their suggestions not be feasible there was no means of communicating or collaborating with them. Again, it was considered desirable that the Institute, which hitherto had had officially nothing to do with education, should be identified, not only with examination, but with education also. It was felt that if the two Boards were amalgamated, they would get a very much stronger joint Board, because anyone who had had to do with the examinations would have appreciated the fact of the great difficulty of getting members to conduct the examinations. The reason why the clause beginning "The Council may, on the advice of the Board, appoint examiners, &c.," was struck out was because it was felt that if the Board were established as proposed, by far the better plan would be to let it draw up its own regulations and see they were carried out, and that it was implicit and not desirable that the clause in question should be inserted in a By-law. Education and examinations advanced and improved as time went on, and it would be very undesirable if the Institute were unable to make alterations in the scheme of education and examination which was in operation all over the country without going to the Privy Council for a By-law. If a Board were appointed in whom they had confidence, it would be for them to draw up regulations for the conduct of the Institute examinations, rather than to have it inserted in a By-law.

Mr. ARTHUR CROW [F.]: My difficulty is to see how sixteen members of the Board are to do the work which at present takes more than double that number. There are twenty-one members of the Board of Examiners besides fifteen assistants, and there are thirteen members of the Statutory Board. That would make thirty-four members of the two Boards, exclusive of assistants. How are the sixteen members of the new Board going to do the work which now takes thirty-four?

Mr. SLATER: The Board deals with the education of students, and they would be left free to appoint examiners.

Mr. CROW: Will the Examiners be members of the Board?

THE CHAIRMAN: Not necessarily.

Mr. CROW: I suggest that they ought to be. From the speeches just made I understood that the object of these changes was that the Board of Education and the Board of Examiners should be one and the same thing, and that the examinations would be conducted on the lines laid down by the amalgamated Boards.

THE CHAIRMAN: The By-law before the Meeting has been drawn up on the advice of both Boards; it is a working arrangement by which both Boards will deal with education and examination. The new Board will have the control of the examinations and the appointment of examiners.

Mr. CROW: I think the Examiners themselves should be in touch with the Board of Education; they should confer together and agree upon the lines upon which the examinations should be conducted, and the two bodies should work together harmoniously.

THE CHAIRMAN: That is the object of the whole By-law.

Mr. CROW: It does not appear to have been given effect to. If the Examiners are not to have the advantage of hearing what is discussed at the Board of Education, they will be at cross purposes.

Mr. MAURICE B. ADAMS: Mr. Slater has given us the best of reasons, and it appears to be a very wise arrangement. I move that the question be now put.

Mr. H. SHEPHERD [A.] pointed out that By-law 44 provided for the annual appointment by the Council of a Board of Education and Examination. By-law 61, however, said that the Annual General Meeting shall appoint the Statutory Board or Boards of Examiners under the London Building Act 1894 and other Acts of Parliament. By-law 61 of the Draft would require some overhauling.

THE CHAIRMAN: That will be done.

Mr. F. T. W. GOLDSMITH: If the contention of some previous speakers is right the Board of Examiners are in a worse position than before. At present they are appointed by the Royal Institute of British Architects; now it appears they are to be appointed by the Board of Architectural Education, which is not improving their position.

THE CHAIRMAN: They are appointed by the Council now.

Mr. GOLDSMITH: I regard that as an appointment by the Royal Institute of British Architects, but I do not regard the appointment by the Board of Education as an appointment by the Royal Institute of British Architects. It is putting the Board of Examiners in an inferior position to what they occupy at present. The Board of Examiners should certainly be in touch with the Board of Architectural Education now to be appointed. To separate the governing body from the executive would be a great mistake. The object of the Council in framing this excellent by-law is that the two bodies should be one body in future. There is to be no separation in sympathy or in interests, but they are to work on one common line. I believe that is the view of the Council. But if the views just given expression to are right, the two bodies are to be kept quite distinct, and the position of the Board of Examiners will not be improved at all. What is necessary is one homogeneous body to administer education. To separate the Board of Education from the Examiners is a great mistake, and will be found so.

Mr. MIDDLTON: The proposed By-law is perfectly logical, but it will certainly change the position of the Examiners; they will no longer be a Board of Examiners; they will be individual examiners, appointed by and acting under the Board of Education.

Mr. MAX CLARKE: There is nothing in the By-law empowering the Board to appoint examiners; it says the Board shall have the supervision of the examinations, but it does not say anything about arranging its conduct.

Mr. GEORGE HUBBARD: The idea is that the new Board of Education shall have absolute power to carry out the whole work of education and to conduct the examinations. The Board will appoint those it thinks most capable to act as examiners.

Mr. CROW: It does not say so.

THE CHAIRMAN: The Board will nominate, subject to the approval of the Council.

Mr. HUBBARD: And they will conduct the examinations. As to whether the Examiners will be paid or not is a question which will have to be settled afterwards.

Mr. JOHN MURRAY: It is not quite clear in the By-law what the duties of the Education Board will be, nor how they will carry them out. It states that they shall not incur any pecuniary responsibility. It strikes me, however, that they would have to incur in some way or other

very considerable expenses. I do not see how it is to be arranged.

THE CHAIRMAN: No Committees of the Institute can incur pecuniary responsibility; they can only make recommendations to the Council, which will be endorsed or rejected. This Board will be in identically the same position.

Mr. JOHN MURRAY: Is the general working of the Board to be carried out by the officers of the Institute?

THE CHAIRMAN: Certainly.

Mr. HUBBARD: I will second Mr. Adams's motion, that the question be now put.

Mr. W. E. V. CROMBIE [A.]: There is nothing in the By-law saying that the Board of Architectural Education shall add other persons. Its fifteen or sixteen members are to carry out the whole examinations themselves, without adding any other member; they are thus cutting themselves off from a considerable amount of experience which the old Board of Examiners had.

On putting the motion from the Chairman that the question be now put, the Chairman stated that the two-thirds majority would not apply to this motion—an ordinary majority was sufficient.

On a show of hands 17 voted for and 11 against, and the motion was declared carried.

The motion for the adoption of the By-law as revised was then put from the Chair. On a show of hands 18 voted for and 12 against it.

THE CHAIRMAN declared the motion lost for want of the two-thirds majority required by the By-law.

The meeting adjourned at 7, and the debate was resumed at 8.45, at the conclusion of the meeting called at 8 to consider the Premises question.

On Mr. Leonard Stokes, who had presided over the Premises meeting, vacating the Chair in favour of Mr. Gibson, Mr. Win. Woodward [A.], supported by Mr. Langston [A.], objected on a point of order to the meeting being proceeded with, on the ground that notice had not been given that the By-laws discussion would be continued at the conclusion of the Premises meeting.

THE CHAIRMAN pointed out that under the By-law no notice was necessary in case of an adjournment for less than seven days. The meeting had adjourned at seven until half-past eight; the proceedings were quite in order; and the consideration of the By-laws would continue.

Mr. MIDDLTON suggested that, having in view what had happened with regard to No. 44, probably the best course would be for the Council to bring up a new By-law to take the place of the one which had been rejected. All the rest, he suggested, should go back and be taken again early next session, as there was no chance of getting through them this session.

Mr. SLATER said that By-law 44 being practically negatived, the Council and the Institute were put in an extremely difficult position. If the Chairman held that it was open to anyone present to move further amendments upon the By-law, they might get over the difficulty. But if he held that the By-law, not having been carried, lapsed, they were in a perfectly deplorable condition, because they should then have no means of providing for architectural education or examination, and he must say that he deplored more than he could say the action of those who had prevented the By-law being carried. The resolutions which were sent up to the Council, and which resulted in the By-law being amended, were actually agreed to by a Joint Committee of the Board of Education and the Board of Examiners. There was not the slightest ground for suggesting that there was any friction between the Board of Education or the Council and the Board of Examiners, and it was most regrettable that after so much time and consideration had been given to the By-law that it should not have been carried by the requisite majority. If the Chairman held that the By-law having been negatived, no amendment upon it could be brought forward, then the

only course to adopt was that suggested by Mr. Middleton, to adjourn the matter and reconsider the whole question.

Mr. MURRAY said he understood that what was voted upon was the amendment of the By-law, and that the amendment was negative, not the By-law as originally drafted.

Mr. GOLDSMITH said if that were not the case he had been under a wrong impression himself. What was voted upon was the amendment proposed from the Chair, not the draft By-law sent out by the Council. The latter had not the dangers in it the amendment had; it was much more in harmony with his view and with the views of a great many others present here than the amended form. He assured Mr. Slater that he had not voted against the resolution sent up by the Joint Committee: what he had voted against and what he should continue to vote against was the inadequate amendment proposed in its place. He desired to dissociate himself altogether from those who opposed the recommendations of the Committee of the Board of Education and the Board of Examiners as represented by the resolution sent up to the Council, but these recommendations were not contained in the By-law they had voted upon that evening.

Mr. MURRAY: That is exactly what I understood

Mr. SLATER: This By-law as framed and printed was issued before the Joint Committee made their recommendations, and it was after the recommendations of the Joint Committee that the Council decided to make these alterations to accord with the recommendations.

Mr. BROMIE suggested that they should drop No. 44 for the moment and go on with the other By-laws at the next meeting, for it was very unlikely they could finish them that evening. At the following meeting, the Council, bearing in mind what Mr. Goldsmith had said, could put forward whatever they thought would meet with the approval of the meeting, and the matter would be made right.

Mr. E. P. WARREN (F.) asked for a statement from the Chair as to what their actual position was.

THE CHAIRMAN: The motion which was not carried because of an insufficient majority consisted of the by-law as amended by the Council. It was perfectly competent for them now to discuss the by-law as originally drafted, or to bring further amendments before the meeting.

Mr. MAX CLARKE asked for some explanation from the Chair as to the precise nature of the Council's amendments. He quite appreciated that they were in a serious difficulty, and the only way to get over it would be for the Council to revise the By-law and bring it before another meeting in its revised form.

Mr. GOLDSMITH: Would it not be possible for that course to be followed: to defer consideration of By-law 44, and let the Council bring it forward in an amended form, giving members an opportunity of seeing it in print before the day of meeting? He quite thought that the new Board was to be a homogeneous body, and that the Board of Examiners, those engaged in the active and actual work of examination, were to have a place upon the Board and to have equal rights with what might be called the advisory element of the Board; that it was to be one body elected or selected for the purpose of conducting examinations and for considering broadly and widely the larger question of education. If an amendment in that sense were placed before them next time there was no doubt it would be carried unanimously.

Mr. JEMMETT asked if he should be in order if he proposed the resolution of which he had already given intimation—viz. that one-fifth of the members of the Board should retire annually in rotation.

THE CHAIRMAN: I might mention that a proposal of that sort has been put forward as a matter for the internal working of this particular Board; it is intended that there should be a limit of service for members of the Board. That is entered already in the minutes of the Council,

and does not need to be incorporated in a By-law. I can read it to you for your information if you wish, but you can take it from me that that has been done.

Mr. JEMMETT: Thank you very much. I am quite satisfied with the statement you have made.

Mr. GOLDSMITH: When shall we have the opportunity of considering No. 44 as revised?

THE CHAIRMAN: It depends on the date we adjourn this meeting to.

Mr. CROW: May I ask that the By-law as amended by the Council be sent to us prior to the meeting?

THE CHAIRMAN: That will have to be done in order to comply with the By-law. No. 45, which also relates to the Examinations, will have to go back to the Council and be brought up again with No. 44. Meanwhile the consideration of the remaining By-laws might be got on with.

No. 46 was agreed to without discussion.

Mr. MIDDLETON suggested that No. 47 and the others referring to the Standing Committees should go back to the Council. It was evident at the Annual General Meeting that there was a good deal of dissatisfaction among members of Standing Committees with regard to their representation on the Council. There was evident need, therefore, for reconsidering the actual constitution of the Standing Committees, whether they should remain to be appointed by members as at present, or whether a certain number had not better be appointed by the Council, a very considerable proportion, if not the whole, of them being members of the Council, so that the Committees could have direct representation at the Council meetings when the Committee reports come before them. By this means all the views which had been well supported in Committee could again be put by those who held them on the Council. It could be quite understood that it might happen now that a Committee came to a decision, but having no representative on the Council when their decision went up to that body the whole thing had to be rediscussed, nobody being there who knew the arguments which had been adduced at the Committee meetings. All the By-laws relating to Standing Committees, he suggested, should go back and be carefully reconsidered, and the views of the Standing Committees taken on the subject.

Mr. LEONARD STOKES suggested the advisability of the Council being given some sort of lead as to what should be done.

Mr. WOODWARD: This might be met by a By-law enabling the Chairman of each of the Standing Committees to be *ex officio* a Member of Council.

THE CHAIRMAN: The Council at the present time co-opt on the Standing Committees five members, and can have a direct representation upon all the Standing Committees if they so desire. In what other direction is it wished that the Council should co-opt members?

Mr. SATCHELL: The point is that the Committees want to be represented on the Council. Mr. Middleton's suggestion does not seem to meet the case at all, because specially technical men are wanted on the Committees; but if there is only one member on the Committee who is a member of Council, he can represent the Committee at the Council and bring their arguments before it.

Mr. MURRAY: This point might be met by the Standing Committees selecting one of their members to represent the facts to the Council if necessary. It might be done in another way by the Council granting a concession to the Committee to be represented by their Chairman, or by any other member they liked to select, for the particular business that the Committee wishes to lay before the Council.

Mr. SLATER: That surely could be done by a resolution of Council.

THE CHAIRMAN: Within my own recollection what Mr. Murray suggests has been done on more than one occasion.

Mr. MURRAY: That is not my point; my point is that the Committee themselves should have the power of asking

to be represented in certain cases, and not leave it to the discretion of the Council to invite representatives to attend.

Mr. CROW proposed that the Council should have power to co-opt six members to each Standing Committee instead of five, and to add the words "at least one of whom shall be a Member of the Council." That would secure all Committees being in touch with the Council.

Mr. GOLDSMITH seconded.

Mr. WOODWARD gave an instance of what he conceived to be the usefulness of the Chairman of a Standing Committee being *ex officio* a Member of the Council. A Standing Committee have to send to the Council their Annual Report, and that Annual Report is sometimes edited by the Council. It would be very useful if a member of the Standing Committee were present at the Council meeting when these reports were brought up, because in case they proposed to make any alteration he might be able to urge reasons why the Report should be sent to the General Body as it stood.

Mr. MAURICE ADAMS said Mr. Stokes had very reasonably asked the Meeting to give the Council a lead in this matter. He would suggest that if they could have by right a direct representation on the Council when any matter affecting that Committee arose, it would be an enormous gain to the Institute and a saving of time as well. It often happened that by the time the Council had had an opportunity of expressing an opinion and taking action, all sorts of things had happened and the useful work done by the Committee had been lost. For instance, some immediate step for the protection of an ancient building has to be taken, and instead of the Institute leading in the matter it has to play second fiddle to some other society or individuals, owing to the Standing Committee being powerless to act on its own initiative. It should be made as desirable as possible for the best men to seek election on the Committee, by giving them the utmost responsibility and the utmost limit of power that could properly be accorded them.

Mr. BRODIE said he cordially supported Mr. Adams, especially in his view that the Standing Committees should be quite influential bodies, so that it should be the aim of members to get a seat on one or other of them.

Mr. CROW, replying to the Chairman, said that the clause amended as he proposed would read: "The Standing Committees shall each consist of not more than twenty-two members, namely, ten Fellows and six Associates, to be elected annually in the manner hereinafter provided, and other members to be subsequently appointed by the Council, at least one of whom shall be a member of the Council."

Mr. GARRETT said he saw no advantage in making Committees bigger than they were already. A Committee of twenty-one members should be strong enough for any purpose. If the Council wished to be directly represented they had the right to nominate five members, and they could nominate them entirely from their own number if they chose.

Mr. CROW: I understood that this co-option of members by the Council was with the view of getting outside men of eminence to act with the Committee.

THE CHAIRMAN: That is hardly the case. It sometimes happens that members of the Committee who really do the best work by the chance of the ballot lose their seats. In such a case the Council co-opt them on to the Committee, and their services are retained for the Institute.

Mr. CROW said he had no objection to leaving the number at twenty-one, and would simply propose to add the words "at least one of whom shall be a member of the Council."

The proposal having been seconded was put from the Chair and agreed to.

Mr. BRODIE proposed that the following provision be added to By-law 48: "No member shall be eligible for election or appointment on more than one Standing Committee in any one year." He thought it a great mistake for one man to be on two Committees; it prevented another man who ought to be taking part in the Institute work

from sitting on the second Committee. If a member gave the proper amount of attention to the work of one Committee he would be doing very well.

Mr. H. H. STATHAM [F.] objected to the motion. It was taking away the opportunity from the one man of serving on two Committees at one time in both of which he might be interested. He had had the honour of sitting on two Committees, and was one of the most constant attendants at both. A regulation as proposed would be curtailing his use, and others might be in the same position.

Mr. A. R. JEMMETT seconded Mr. Brodie's proposition.

Mr. MAX CLARKE supported the proposition. He himself was a member of two Committees, but was of opinion that, no matter how useful a man might be on two Committees, it would be far more useful to the Institute as a body that they should have separate men. The object of the Institute should be to broaden the interest of members in the work which was going on; the more they could spread out the base the greater would be the interest, and it was desirable to encourage the ambition of the younger men to serve on the Committees. Although he himself was one of the standing examples, he nevertheless felt that it was not fair to occupy a place that some other man might fill.

The proposition being put to the vote was carried.

Mr. BRODIE said he had also to move that an addition be made to the By-law providing that no member shall serve on the same Committee for more than six successive years. If they removed a man from the Council at the end of six years they should equally remove a man from the Standing Committees at the end of six years. The idea was the same—viz. to maintain the interest of members in the work of the Institute.

Mr. GOLDSMITH seconded.

Mr. A. T. BORTON [F.] said he had been on a Committee for several years and then had sent in his resignation. He had since been on another Committee for some time, and later on he should resign from that too. No one ought to get on these Committees and remain there. For anyone to be on a Committee for six years was good enough for him, and good enough for the Institute too.

Mr. MAX CLARKE, on the same point, proposed a resolution in the following form: "Three Fellows and two Associates shall retire from the Standing Committee on which they have served each year and shall not be eligible for re-election or appointment by the Council for service on the same Committee until the expiration of two years from the termination of their tenure of office." This, he said, was on the same lines as the resolution applying to the Council.

Mr. CLARKE's proposition not being seconded, Mr. Brodie's resolution was put from the Chair and carried.

No. 48, as amended, was then put and agreed to.

Mr. Saxon SNELL, on No. 49, said that some of the difficulties from which the Standing Committees suffered had been already referred to. The Committees were advisory Committees only; they were appointed by the Institute, but were amenable to the Council, and not only were they debarred from taking independent action, but the Council had even the right to forbid them appealing against their decision in any action they recommended. He moved that the last sentence of No. 49 be omitted, and the following added: "Provided that in case the Council reject or fail to act upon any such report or suggestion the Committee may through its Chairman make a communication or submit a resolution thereon at any General Business Meeting." That would give the Committees an opportunity of appealing against the Council.

Mr. BRODIE pointed out that such a provision was hardly necessary. The Chairman of a Standing Committee which felt itself aggrieved could, in his private capacity as a member, give notice of any sort of resolution for a Business Meeting. He could thus ensure the matter being discussed. It was not at all desirable to put it into a By-law.

The proposition being seconded was voted upon by show of hands and rejected.

No. 49 was then agreed to as printed in the draft.

Mr. MAX. CLARKE, on No. 50, moved that the following provision be added: "No Chairman of a Standing Committee who has filled the office for two consecutive years shall be again eligible for the chairmanship until the expiration of two years from the termination of his tenure of office."

Mr. SLATER suggested that this was a regulation that the Committees should make for themselves; it was unnecessary and undesirable to put it into a By-law.

Mr. BRODIE said he had had some experience of these Committees. If somebody proposed at a meeting that the old Chairman should be re-elected, it was very difficult for any member of the Committee to object, and it was especially hard on the executive officers who knew that the old Chairman was particularly incompetent. He was therefore strongly in favour of Mr. Clarke's suggestion that a Chairman's tenure of office should be limited by By-law; it would get them over a serious difficulty.

Mr. LEONARD STOKES pointed out that a regulation might be made by the Council under By-law 35, which would be quite as strong as a By-law and not be so troublesome to change if they wanted to alter it later. If the Meeting would ask the Council to draw up a regulation to that effect they would do so.

Mr. MAX. CLARKE said that the two Committees on which he was serving would consider that arrangement most undesirable. Both Committees were in favour of this proposal, and knew that he was bringing it forward.

Mr. H. A. SATCHEL [F.] said he knew a case of a Chairman who expected to be elected to the chairmanship a second session and was not elected, and he did not attend the Committee any other time that session. Some definite regulation, therefore, which would prevent the feeling that a man is necessarily succeeding to the Chair would be a great help to the Committees.

Mr. MATRICE ADAMS said he could not help thinking that it would be better to face this thing squarely and fairly. What they should aim at was to get more men to take an interest, and more qualified men to take an interest, not only in the Council, but in these Committees, and there was no reason at all why they should not put it in a By-law. He should support the proposal.

Mr. CROW opposed the motion. There were certain gentlemen among them eminently fitted to preside over the deliberations of these Committees, and he could not see why they should be got rid of. As Mr. Hall had put it to them the other night, would they think of changing the director of a company every two years? From the business point of view the proposal would not be entertained for a moment.

The motion being put from the Chair was carried.

Mr. BRODIE proposed to omit the words "have the right to" in the first line of No. 50, so as to read: "The Standing Committees shall each appoint" &c. These words carried one back to the time when the Standing Committees were in a subsidiary position; they were given the right to do something then. Now they were firmly established and they ought to be able to attend to certain business.

The proposal was put from the Chair and agreed to.

Mr. BRODIE, referring to the last line but one, asked why the Chairman of a Standing Committee might not call the Committee together whenever he thought fit. The By-law read "subject in all cases to the convenience of the Council." He really did not think the Council had anything to do with it: the Chairman of a Standing Committee of a great Institute should have the power to call a meeting at any time he thought fit subject to the approval of nobody at all. He moved that the words "subject in all cases to the convenience of the Council" be omitted.

Mr. LEONARD STOKES: The only reason it was put in, I

believe, was that if all the Committees decided to sit at the same time there would not be room for them. We will agree to that.

The proposal being put to the vote was carried.

No. 50 as amended was then put and agreed to.

Nos. 51, 52, 53, 54 were respectively agreed to as printed.

Mr. MIDDLETON, on No. 55, referred to the change proposed "of whom the majority present shall be Fellows." There might happen to be a meeting which was of great interest to the Associates and of comparatively little interest for Fellows; there might be forty subscribing members and yet not be a majority of Fellows. He suggested that the word "majority" should be changed to "at least twenty-one." The necessity that the majority should in all cases be Fellows might very well invalidate a most useful meeting.

Mr. STATHAM: I think this is a most dangerous and unconstitutional suggestion.

Mr. A. W. S. CROSS [F.] moved to omit "the majority" and insert "of whom at least twenty-one shall be Fellows."

Mr. STATHAM: It is the same thing; twenty-one is the majority of forty.

Mr. GARBUTT: The quorum of forty is rather high. Why should a General Meeting collapse entirely because forty members are not present?

Mr. LEONARD STOKES agreed. They should seldom get a quorum of forty, on an occasion like the present, for instance, when the subject was not very interesting.

Mr. CROW: What was the reason for the alteration? I propose the figures should remain as before.

THE CHAIRMAN: It is twenty years since the original figure was settled upon, and we have grown in twenty years; but it rests entirely with the Meeting if it is wished to go back to the original figure.

Mr. CROSS: I shall be ready to withdraw my proposal in favour of Mr. CROW'S.

Mr. JENNETT seconded. All these enlargements of numbers were a wrong policy, because it made it more difficult for them all to take an interest in the affairs of the Institute.

Mr. SLATER: The object of the Council in making the proposal was exactly the opposite. They thought if they made the quorum larger they should be more likely to get members present.

The amendment being put, that the original figures be restored, was carried.

No. 55 as amended and Nos. 56 and 57 as printed were agreed to.

Mr. H. SHEPHERD [A.], on No. 58, said the fourteen days' notice required to be given of motions intended to be submitted to a Business Meeting seemed unnecessarily long. A question might crop up perhaps in a week—a matter, for instance, on which a Standing Committee was engaged—and it might be of such urgency that fourteen days would be too long. He suggested they should make the notice ten days.

THE CHAIRMAN: The notice has to be printed and is used to members seven days before the meeting at which it is to be brought forward. We could scarcely do with less than seven days' notice.

Mr. MIDDLETON suggesting that the notice ought to be in writing, the Meeting agreed to insert the words "in writing" after the word "given."

No. 58 as amended and Nos. 59 and 60 were respectively put and agreed to.

No. 61, depending to some extent on No. 44, was referred back to the Council, to be considered in connection with that By-law.

On No. 62, on the proposition of Mr. Max. Clarke, duly seconded, it was resolved that the number of requisitionists for a Special General Meeting, which the draft proposed to raise to twenty, should remain at twelve, as in the existing By-law.

Mr. MAX. CLARKE, on the same By-law, proposed, and it was duly seconded, that the following sentence be omitted

—viz. "Any member desiring to propose an amendment at such meeting must specify the same in a notice to be delivered to the Secretary at least three days before the proposed meeting."

Mr. GARBUTT, speaking in support, said that in many cases it must be impossible to know whether an amendment was desirable until one had heard the reasons for the original motion being brought forward. It would be contrary to all ordinary practice to rule that no amendment could be moved at a meeting to a resolution of which notice had been given.

Mr. MAX CLARKE pointed out that at the present meeting a great many amendments had been moved and carried which would have been barred out altogether if such a regulation were in force as that proposed.

The motion to omit the provision was carried on a show of hands.

Mr. MAX CLARKE, on the same By-law, proposed that the quorum referred to in the last sentence should remain at twenty, as in the existing By-law, instead of forty, as proposed.

Mr. SLATER: It must be remembered that this quorum is for a meeting at which some important proposal was to be brought forward, or it would not be a Special Meeting. Is it safe to allow motions to be brought forward and perhaps carried with only twenty people present? I would suggest making it thirty.

Mr. CROSS seconded Mr. Clarke's amendment, which on being put to the Meeting was lost.

Mr. SUTHELL thought Mr. Slater's remarks convincing, and moved that the quorum be thirty, of whom at least sixteen should be Fellows.

Mr. CROW having seconded, the amendment was voted upon and declared carried.

No. 62 having been put as amended was agreed to.

Mr. JEMMETT, on No. 63 being put, asked for an explanation of its meaning, as it was an entirely new By-law.

Mr. SLATER explained that on several occasions the By-law which prohibited the President from serving more than two consecutive years had been suspended by a resolution of the Institute in order to allow him to continue in office for a third year. The Council had been advised by their solicitors that under the present By-laws it was not competent for a By-law to be temporarily suspended in this way, and they therefore proposed to include a provision to enable the General Body to suspend a By-law if necessity should arise.

No. 63 was then passed as printed.

Mr. JEMMETT, on No. 64, proposed that the number of Fellows competent to propose the adoption of a new By-law or alteration or repeal of any existing By-law should remain as at present—viz. twelve, instead of twenty, as proposed.

Mr. SLATER pointed out that a proposal for a new By-law or the alteration or repeal of an existing By-law had to go to the Privy Council; and he did not think that a matter of such importance, and involving considerable expense, ought to be proceeded with unless supported by at least twenty Fellows. This matter was of much greater importance than some of the numbers altered that evening, and he urged very strongly that the number should remain at twenty.

The proposed alteration having been put to the vote was rejected, and the By-law agreed to as drafted.

The Meeting then adjourned till the 28th June at 5.30.

Adjourned Special General Meeting, 28th June 1909.

Mr. EDWIN T. HALL, Vice-President, in the Chair.

THE SECRETARY having read the Minutes of the meeting held 23rd June, two insertions were ordered to be made therein [see Minutes, 28th June]. The Minutes were then passed and signed.

The Chairman invited consideration of the remainder of the Draft By-laws, beginning at No. 65.

Mr. C. H. BRODIE [?], pointed out that in the report of the By-laws discussion printed in the last JOURNAL, p. 595, remarks made by another member were attributed to him, and he asked that a correction should appear in the report of the present proceedings.—The remarks referred to are about half-way down the 2nd column of p. 595—the first beginning, "That is exactly what he cannot do as a rule," the second, "I say it is most decidedly." The speaker, it has to be explained, was not Mr. Brodie, but Mr. MAX CLARKE.

Mr. MAX CLARKE called attention to the fact that the existing By-law 43, relating to the Statutory Board of Examiners, had been inserted in small type in the Draft By-laws now printed in the JOURNAL, p. 541, and asked why the existing By-law 42 had not been also inserted.

THE CHAIRMAN explained that the old By-law 43 ought to have appeared in the draft issued 5th May in small type, to show that it was to be deleted. The omission had been made good in the current number of the JOURNAL. The old By-law 42 ought also to have appeared in small type, but it had been omitted through some misunderstanding.

Mr. MAX CLARKE: At the head of the original draft in the Supplement of the 5th May it is stated that "all matter proposed to be omitted is printed in small type." Anything that formed part of the existing By-laws not printed in small type cannot, I take it, be omitted.

THE CHAIRMAN: The proposed By-laws are in the Supplement printed in black type and in ordinary large type. For the convenience of members it had been intended that what was proposed to be omitted should be shown in small type. In this case, however, the old By-law was accidentally omitted; but that does not affect the principle. The Council's proposals are before you in the clauses numbered consecutively from 1 to 82.

Mr. G. A. T. MIDDLETON, speaking on No. 65, with regard to the "forty Fellows" required to be present when resolutions respecting By-laws were to be brought forward, suggested that twenty Fellows would be ample for the purpose. They were hardly likely to get more than forty members present all together.

THE CHAIRMAN said that the By-laws governed the Institute all over the United Kingdom and the Colonies, and it did not seem reasonable to the Council that two-thirds of twenty members should settle the By-laws for perhaps 3,000 members. The Council considered that such a grave matter as the alteration of a By-law should only be resolved upon if forty Fellows at least were present.

Mr. MAX CLARKE: There are not anything like forty members present now.

THE CHAIRMAN: The existing By-laws do not require more than twenty; we are altering that.

Mr. MIDDLETON: Under the existing By-laws there must be twenty present, of whom only eleven must be Fellows. The proposal is to make it forty Fellows, thus quadrupling the quorum.

THE CHAIRMAN: The present By-law was passed twenty-two years ago, when we numbered only eleven hundred members. Now the membership is more than double that number, and it is surely reasonable to increase the quorum in proportion to the increase of members.

Mr. H. SHIPLEY: This raises another question. The By-law goes on to state that the resolution shall be suspended on a poll being demanded by at least twenty Fellows. Assuming forty Fellows present, the division might be almost equal—twenty-one for the motion and nineteen against—yet the nineteen would not have the right to demand a poll. Assuming it was desirable to have forty Fellows voting, why not keep to the two-thirds majority of the existing By-law? A two-thirds majority would be a much more workable and satisfactory majority than the one possible under the Council's proposal.

Mr. BRODIE agreed with the last speaker. A demand for a poll should be considered as regards the voting on exactly the same plane as the passing of the resolution. No demand for a poll should be received at the meeting unless the resolution had passed by a majority of at least two-thirds of the Fellows present and voting. A poll ought not to be lightly demanded, or lightly allowed to be taken.

Mr. MIDDLETON: The two-thirds majority seems reasonable, but forty Fellows is too large a number to insist on having present.

Mr. GARLICK proposed to make it thirty, but the proposition failed for want of a seconder.

The motion being put to the vote that the number should be forty as proposed in the Draft was declared carried on a show of hands.

THE CHAIRMAN put to the Meeting the proposal that the majority required to pass a resolution must be two-thirds of the Fellows present and voting.

Mr. JEMMETT objected to the proposal. Supposing a new By-law is proposed and an amendment to it is supported by almost a two-thirds majority: not being a complete two-thirds majority the amendment would be lost, although a majority of the members present were in favour of the amendment and against the By-law.

THE CHAIRMAN: If there is a majority against it, it follows that it cannot be passed by a two-thirds majority in its favour. Supposing there is a proposal for a new By-law, and a resolution is put that it be passed: somebody moves an amendment, and a majority—though not a two-thirds majority—of those present are in favour of the amendment. It follows that the By-law is lost because when you put it up as a substantive motion, the majority who have voted for the amendment would still vote against the By-law, and therefore it would be lost.

The amendment that the majority be two-thirds being put to the vote was carried upon a show of hands—20 for, 2 against.

THE CHAIRMAN put to the Meeting the next sentence—viz. "Provided always that the Resolution shall be suspended on a demand being made at the meeting by at least twenty Fellows that a poll thereon shall be taken by voting papers."

Mr. GARBUTT moved as an amendment that the number of Fellows demanding a poll should be twelve instead of twenty.—The amendment having been duly seconded and put to the vote was declared lost.

A motion by Mr. JEMMETT, that the number be one-fourth of the Fellows present, failed for want of a seconder.

A motion by Mr. MATT. GARBUTT that the number be fourteen was put and lost.

THE CHAIRMAN: With regard to the twenty proposed in the Draft, Mr. Shepherd has very rightly pointed out that if there are twenty-one voting for and nineteen against, it would be hard on the latter that they should not have the opportunity of taking a poll. Might we make it fifteen?

Mr. BRODIE: A poll ought not to be demanded by less than twenty in any case.

The question being put to the vote, it was agreed that the number stand as printed in the draft.

THE CHAIRMAN accepted a suggestion of Mr. Nixon Horsfield [1.] that the final sentence of the paragraph should form part of the proviso in the preceding sentence, so as to read, after the word "papers," "or it shall be suspended," &c.

Mr. MIDDLETON, referring to the words in the second paragraph, "if there are present at least forty members, of whom the majority present shall be Fellows," said it might happen that the necessary forty would be present and yet the majority not be Fellows. It might be a subject in which the Associates were largely concerned and there would be an ample number present to carry on the meeting. He suggested the passage should read after "members" "of whom at least twenty-one shall be Fellows."

Mr. JEMMETT: Is not that governed by No. 55, as amended?

Mr. SHEPHERD: The proportion in No. 55 as drafted was not, I think, in conformity with the ideas of the Council at all. To take a case, an Associate proposes a resolution which is solely in the interests of the Associates, and gets the necessary number of Fellows to support it. Supposing one hundred Associates were present, the Fellows not being present to the number of twenty, no business could possibly be done. Supposing, again, a matter brought forward which was strongly in the interests of the Associates: the Fellows by abstaining from coming to the meeting could stop a resolution from being carried at all. That, I am sure, could not have been the intention of the Council.

THE CHAIRMAN: Associates have the right to a vote on those subjects.

Mr. SHEPHERD: Yes, but on any professional subject the business could not proceed unless there were twenty-one Fellows present.

Mr. DOUGLASS MATHEWS: I do not think we ought to reduce this so as to give twenty-one members the right of dealing with the Institute property and professional questions. I think at least forty Fellows should be present.

Mr. MIDDLETON: There might be 100 members present of whom fifty-one were Associates and forty-nine Fellows, and they would be unable to proceed with any business.

Mr. DOUGLASS MATHEWS: I think there should be fifty and that there should be a two-thirds majority of Fellows.

THE CHAIRMAN: There is a little difficulty perhaps in interpreting what the majority means. Would it read better "declared to be carried if there are present at least fifty members, of whom the majority shall be Fellows"?

Mr. J. NIXON HORSFIELD [1.] Whatever the number is, if the words "majority present" or any such words remain, it brings us to a Gilbertian absurdity, because the support of an accidental superabundance of Associates will stop anything.

Mr. SHEPHERD: Are we discussing the actual words in this document?

THE CHAIRMAN: We are discussing the words, but if there is any difficulty they can be sent back for redrafting.

Mr. BRODIE: That was my point; we might vote upon the point that there be fifty present with a two-thirds majority of Fellows. The Council would then know exactly what we mean.

Mr. HUBBARD: By insisting that the majority must be Fellows it would be necessary sometimes for a certain number of Associates to leave the room before business could proceed.

THE CHAIRMAN: I cannot read that into the By-law.

Mr. HUBBARD: The majority must be Fellows.

Mr. MIDDLETON: I suggest it would be perfectly reasonable to make it "at least fifty members, of whom thirty shall be Fellows."

THE CHAIRMAN: Supposing there were thirty Fellows present and seventy Associates, the Associates could in that case dispose of any resolution affecting the property or management of the Institute.

After some further discussion Mr. Douglass Mathews's amendment, seconded by Mr. Matt. Garbutt, that "fifty" be substituted for "forty," was voted upon by show of hands and declared carried—9 for, 7 against.

Mr. DOUGLASS MATHEWS proposed that there should be at least a two-thirds majority of Fellows.

Mr. BRODIE seconded.

Mr. MIDDLETON suggested the advisability of stating a definite number—say thirty. The "two-thirds majority" proposed might lead to a difficulty if there were a great number of Associates present.

Mr. SIXON SKILL: Could we not refer this part back to the Council? What is wanted is that the By-law should be framed so that a majority of Associates could not overrule the Fellows in dealing with the property of the Institute.

MR. GARDNER: We may assume, I think, if we have a very large majority of Associates voting in favour of a proposal, that probably it would be a reasonable proposal. What we want to do is to stop a small body coming to rush a thing through against the wishes of the whole Institute. If we could decide that fifty members must be present and that at least forty should be Fellows, then, if there was a subject of great importance, and 50 Associates attended, they would have it then over-ridden. If that happened, however, the matter would probably be extraordinarily important and the Associates would be taking a very proper interest in it. I think we need not object if the Associates turn up in strength, and we need not be afraid that they will do anything absurd.

THE CHAIRMAN: The point is whether the junior members should govern the Institute in respect of its property or management.

A MEMBER: Have they not an equal right with Fellows under the Charter?

MR. HUBBARD: Under clause 28 of the Charter Associates have the right of voting on everything connected with the Institute, excepting on the question of By-laws. If we attempt to lay down that the majority of members present at a meeting must be Fellows, I am afraid we shall get into a hopeless difficulty. If a amendment is considered necessary it would be sufficient to stipulate that a certain number of members shall be Fellows, and I think we may confidently trust to the good judgment of the Associates to follow the lead of the Fellows.

An amendment, moved by Mr. Hubbard and seconded by Mr. MAX CRANK, to alter the wording so as to read "of whom at least forty shall be Fellows," was voted upon by show of hands and carried—20 for, 1 against.

MR. DORRASS MARSHALL moved that the majority required in support should be a "two-thirds" majority, and the proposal being seconded and put to the vote was agreed to.

MR. JENNINGS: As I have to move an amendment to the second paragraph, I had better do it at once before it is put as a whole. In By-law 55, in dealing with General Meetings, we have made the quorum twenty. At General Meetings we bring up professional questions, and now we are laying down a quorum of forty for a professional question. What business is to be transacted at a General Meeting, which has a quorum of twenty when all business has to be dealt with at a General Meeting with a quorum of forty?

THE CHAIRMAN: A General Meeting in By-law 55 means an Ordinary Meeting when a paper is read.

MR. JENNINGS: Could not we leave out "any professional questions" from By-law 65 so that they could be discussed at a General Meeting with a quorum of twenty? I quite see the point about property; but surely professional questions are the whole business of the Institute and if you are to have a Special Meeting with a quorum of forty it is putting back the business of the Institute.

THE CHAIRMAN: By-law 58 says that professional questions shall be taken at Business Meetings.

MR. JENNINGS: And the quorum of fifty would apply to all Business Meetings?

THE CHAIRMAN: Yes.

MR. JENNINGS: I quite see that on questions dealing with the Institute property we ought to carry a quorum of fifty, but at a Business Meeting under a quorum of twenty ought to be large enough. I move that we omit from the second paragraph the words "or any professional question."

MR. FRANK B. THOMAS seconded.

MR. CROW: Might I suggest that the proper course would be to divide that second paragraph into two? In the first paragraph we deal with a resolution affecting by-laws. In the second paragraph we deal with a resolution affecting the property or management. In the third paragraph we should deal with a resolution affecting professional questions.

THE CHAIRMAN: There is no harm in subdividing it. What would you suggest as regards quorum and voting?

MR. CROW: I think that as regards process on professional questions the proper quorum is thirty, but I do not think we should be bothered in proceeding by a majority of only ten or eleven members voting present. There might be all sorts of reasons preventing people attending, and it would be very hard on those who had to lead on a demonstration not to be able to carry out a resolution or to bring it discussed. With a score of members present on every professional question matters should be discussed.

THE CHAIRMAN: Things are always so discussed if there were twenty present even if you did not vote upon them. The discussion is as important as voting.

MR. CROW: I propose as an amendment that we divide paragraph 2 into two paragraphs, a first for the professional questions and a second for the second.

MR. HUBBARD seconded.

THE CHAIRMAN having put Mr. Dorrass Marshall's vote to count the words "or any professional question" as upon a show of hands, it was declared lost.

MR. CROW, speaking on his amendment, said that he had forty members present at a meeting on any professional question, he did not think they should insist on the majority being Fellows, and a resolution might be decided upon and it supported by the vote of the majority of those present.

THE CHAIRMAN: In that case we should be breaking away from the principle which has brought the Fellows from beginning to end, viz. that a certain proportion of Fellows, who are the senior and more responsible members, must be present.

MR. CROW: I will meet you a view and say that there should be eleven Fellows present.

MR. MAX CRANK: Would Mr. CROW be so good if we have two clauses, the first being—A resolution on any proposal affecting the property or management of the Royal Institute shall be declared to be carried if there are present at least thirty members, and so on as we have just passed, and then a similar paragraph—A resolution on any professional question shall be declared to be carried if there are so many Fellows. That would simplify matters.

THE CHAIRMAN: How many members shall form the meeting in that case?

MR. CROW: Forty.

MR. DORRASS MARSHALL: I propose that there should be twenty-one Fellows.

MR. CROW: I agree to that.

MR. HUBBARD: I understand it does not matter how many Associates there are in the room as long as there are twenty-one Fellows present.

THE CHAIRMAN: That is the proposal. How shall the vote be carried?

MR. CROW: By a simple majority.

MR. MAX CRANK proposing a two-thirds majority as laid down for the previous resolution dealt with in this By-law, the proposal, duly seconded, was put to the vote and declared carried.

MR. JENNINGS, speaking on the proviso in the next paragraph, said there seemed to be some uncertainty as to whether the Council were bound legally and morally by a resolution of a General Meeting. The resolutions were dealt with in the By-laws with great exactitude, but nowhere was it laid down that the Council should act upon them when passed. He understood there was some legal doubt about the Council's being bound to carry out a resolution of the General Body, and he thought it should be made clear in the By-laws that the Council were bound to act upon a resolution unless they called for a ballot. The Council were now given power to call for a ballot, and he thought it ought to be laid down in the By-laws that the Council must act on a resolution within a specified time, or else take a poll upon the question. He understood that the Council had taken legal opinion as to whether they were bound by resolutions of the General Body.

THE CHAIRMAN replied that the Council were elected to

manage the affairs of the Institute, and no chance resolution carried in that room could control the Council in that respect. The Council had often to act upon private information which could not be spoken about publicly. It would be most unwise to bind the Council to carry out every resolution passed in that room. There were occasions when it would be fatal to the interests of the Institute if the Council were fettered in this way. Under the Charter the entire management of the affairs of the Institute is vested in the Council subject to the By-laws, and it was absolutely necessary that they should have a certain amount of discretion and freedom of action.

Mr. JIMMIE: We are to understand, then, that a resolution of the Institute instructing the Council definitely to do a certain thing is not binding upon them.

THE CHAIRMAN: You must not try to pin me down to this; it is very difficult. I must not be taken to suggest that the Council are likely to be in opposition to resolutions of the Institute. It is much the same here as in the House of Commons. A resolution passed in the House of Commons is not binding on the Ministers—it is a general expression which the Ministers generally give effect to if they can. So a resolution passed in this room would go to the Council, and the Council would give effect to it if they could do so without detriment to the Institute. Beyond that they could not go; it would be ruinous to the Institute if they did.

Mr. JIMMIE: I suggest that it is competent for us to have a By-law binding the Council to carry out a resolution of the General Body.

THE CHAIRMAN: I think no Council could possibly accept it if you did.

Mr. HERBARD: Surely on a professional question the Council ought to carry out the mandate of the General Body?

THE CHAIRMAN: It would, of course, carry out such a mandate, unless there was grave reason to the contrary.

Mr. DOUGLASS MATHEWS, speaking on a point of order, objected that this matter had no connection with any amendment before the Meeting.

Mr. JIMMIE: I beg to move an amendment that a resolution shall be binding on the Council.

Mr. HERBARD seconded.

Mr. SAATCHI: The objection seems to be that the Council might be called upon to act by a snap resolution. Could not that be safeguarded by the Council's exercise of their power to demand a poll?

Mr. JIMMIE: That is my proposal. They should either demand a poll or carry out the resolution.

THE CHAIRMAN: I hope the Council will not be put in such an undignified position. The proposal means that the Council would have to appeal to the General Body as to whether they shall manage the affairs of the Institute as they think best, or whether they should obey a resolution carried perhaps by twenty or thirty people in this room. It is a most dangerous thing.

Mr. STATHAM: The Council are not absolutely bound to carry out any resolution; they could not be bound to carry out this.

THE CHAIRMAN: Imagine the Council having a resolution carried against them, and then coming to the General Body who had elected them two or three months before and asking for support.

Mr. ERNEST NEWTON: The Council would be no longer a Council but a registry office; no one would remain a member of it ten minutes after such a resolution.

The proposal viz. that a resolution passed at a General Meeting, subject to the Council's challenging it by voting papers, shall be binding on the Council—being put to the vote was defeated by a large majority.

On By-law 65 being put for adoption as amended, a proposal by Mr. Ernest Newton, that the By-law be referred back to the Council to embody the amendments and redraft it, was agreed to.

The Meeting adjourned at 7.10, and the discussion was resumed at 8.40.

Nos. 66, 67, and 68 were agreed to as printed.

Mr. GARbutt asked why, under "Studentships and Prizes," the old clauses 67 and 68 were struck out.

THE CHAIRMAN explained that it was considered unnecessary to specify the prizes in the By-laws. There were many others besides those mentioned in the existing By-laws. No. 69 as it stood covered everything.

Nos. 69, 70, and 71 were agreed to as printed.

Mr. STATHAM, on No. 72, referring to the omission of the following sentence from the old By-law, "But should the Council not publish such Paper within eighteen months from its reception the author shall have a right to publish it," asked why it had been omitted. Surely the author might have the right to publish it after a certain time?

THE CHAIRMAN pointed out that the By-law read "every paper, &c., may be published by the Council in any way and at any time that they may think proper, unless there shall have been a previous engagement with its author to the contrary." That covered everything; there was nothing to prevent the author publishing it if the Council did not; but there was no necessity to put that into the By-law.

Nos. 72, 73, 74, 75, 76, 77, 78, 79, 80, and 81 were agreed to as proposed in the Draft.

THE FORMS OF DECLARATION.

Mr. GARbutt, on the Forms of Declaration being put, said that the forms now submitted were much more stringent than was necessary or desirable, and he asked leave to read to the Meeting some clauses now before the Institution of Civil Engineers, and which would probably be adopted. They were to be binding on every corporate member of the Institution and were as follows: "1. He shall act in all professional matters strictly in a fiduciary manner with regard to any clients whom he may advise, and his charges to such clients shall constitute his only remuneration in connection with such work. 2. He shall not accept any trade commissions, discounts, allowances, or any indirect profit in connection with any work which he is engaged to design or to superintend, or with any professional business which may be entrusted to him. 3. He shall not, while acting in a professional capacity, be at the same time, without disclosing the fact to his clients, a director or member of, or act as agent for, any contracting or manufacturing firm, or other business with which he may have occasion to deal on behalf of his clients, nor have any financial interest in such a business except as a shareholder therein. 4. He shall not receive, directly or indirectly, any royalty, gratuity, or commission on any patented or protected article used on work which he is carrying out for his clients, unless and until such royalty, gratuity or commission has been expressly authorised by those clients. 5. He shall not improperly solicit professional work, either directly or by an agent, nor shall he pay, by commission or otherwise, any person who may introduce clients to him. 6. He shall not be the medium of payments made on his clients' behalf to any contractor or business firm (unless that be specially requested by the clients), but shall only issue certificates or recommendations for payment by his clients. 7. He shall not in any part of the British Dominions advertise for professional employment." Mr. Garbutt submitted that these regulations covered the ground very well. They gave freedom to a man to hold investments, and it was reasonable that a man should invest in some business that he more or less understood. Why, for instance, should not an architect hold shares in the Associated Portland Cement Manufacturers? If a man were carrying out work in the South of England he would very likely be using that material, and it would be very hard if he were compelled either to hold no shares in such an undertaking or to prevent his client using the material, although it might be the very best available at the moment and in the district in which he was

working. The point scarcely wanted labouring. There was one point in the regulations he had just read that appeared not to be covered by the proposed Institute Declarations, and that he thought ought to be covered—viz. paying for the introduction of business. The Engineers' regulation read: "Nor shall he pay by commission or otherwise any person who may introduce clients to him." He would suggest that the Council should consider the Engineers' regulations and put something like them into form in substitution for the Declaration now proposed, and that they might bring them up at the next Meeting with the By-laws which had been referred back.

THE CHAIRMAN agreed that there was something to be said with regard to architects being shareholders in limited companies. He had received one or two letters on the subject himself. As regards the Institution of Civil Engineers, however, it must not be forgotten that many of the members of that body were the engineers to trading companies; it was part of their business; but architects were not connected with companies in that way. With regard to the clause "I promise that I will not have any interest in any contract or in any materials supplied to any works on which I may be engaged,"—would it meet members' views to add "unless as a shareholder in a limited company, in which case it shall be disclosed to the client"? It seemed to him desirable that if anything in which they had an interest were specified it should be disclosed to the client at once.

MR. GARBUTT: It is the essence of the whole matter that their position should be disclosed: if the client thoroughly understands, there can be no objection.

MR. STATHAM: The client would have a certain suspicion when he found the material of a company in which the architect was a shareholder specified even after he was told.

MR. GARBUTT: I do not think one should be compelled by this Declaration to sell absolutely regardless of every other consideration.

THE CHAIRMAN: I think our Declaration that you should not have any interest whatever is sound; but if you want it altered, you might put in the words I have suggested.

MR. STATHAM: I am of opinion that it should stand as it does. It is much better.

MR. SATCHELL strongly supported Mr. Garbutt. The proposed restriction was an entirely new introduction, and one was inclined to ask why a Declaration which had proved sufficiently stringent in the past should not be so in the future. Could it be that the Institute, in broadening its base and admitting a new class of members, considered it necessary to exercise a stronger control in the future than it had done in the past? If so, he thought it unfortunate. It might be very desirable to set up high ideals, but if they could be reasoned out of by mental reservations they seemed to him to sap the very morality of any corporate body. He thought he was safe in stating that there were a considerable number of architects interested in industrial companies of one sort or another, and industrial companies dealing with building materials formed a larger proportion of investing media than was usually realised. He had raised this question the other day with a member of the Council, who, however, did not seem fully to appreciate the position because he took the view that, were a member, for instance, merely a debenture-holder in a large corporation, the Council would consider the interest too insignificant for notice.

THE CHAIRMAN: Not in face of this Declaration.

MR. SATCHELL: The member in question was an active member of the Council and that appeared to be his view, and I am glad to hear your opinion—Continuing, Mr. Satchell said it seemed to him that it was not the question of the Council taking the matter up, but that it affected the honour of Fellows themselves, and he thought it would be very hard for the General Body to impose a Declaration which would affect a considerable number of members and might compel them, were the new restrictions

to be acted upon, to sell their holdings. Members did occasionally have money to invest, and he thought Mr. Garbutt made an exceedingly strong point when he said that it would unduly cramp such members in their private circumstances if they were compelled to invest in companies whose concerns they little understood because those that they did understand were forbidden them. Surely it could not be said that being, say, a debenture-holder in a large company would prejudice a member's judgment. Take the instance of the Portland Cement Manufacturers. A debenture-holder had some 2,400,000 of capital behind him, and an order more or less could not possibly affect his holding. If this cement were the best, surely it was very undesirable that a client should be prevented using it because of his architect's infinitesimal interest. Again, architects were occasionally trustees for their wives or others connected with them. As such trustees they were naturally interested in the success of the investments to a greater or less extent, and the proposed restriction covered interest both direct and indirect. Further, they might inherit the investment and it would be very hard to compel them to dispose of it, possibly at a sacrifice. As an example, it happened that he became interested in some shares in a company dealing with building materials. Though he had some personal interest in them he was practically in the position of a trustee. Their value had decreased since they were purchased, and they could not be disposed of except at a material sacrifice. In a certain contract his builder obtained some materials from this company, and, as a matter of fact, he (Mr. Satchell) was able from his connection with the company to serve his clients' interest, but under the proposed restriction he should, he assumed, have had to compel the builder to cease obtaining goods from the company he had been dealing with for many years. He felt so strongly on the whole question that he must ask the indulgence of the Meeting for the length at which he was dealing with it. He must emphasise that the handful of members in that room could not in fairness control the action of the 2,000 and more members of which the Institute consisted, and so long as there were any members who refused obedience to a stringent restriction of this kind, or escaped it by some mental reservation, they would be dividing the Institute into members who obeyed the spirit and others who obeyed only the letter—a very undesirable situation. As regards a qualification, he thought the Chairman's suggested stipulation of disclosing the interest to the client would probably meet the case. There was another point. If an architect had invented some special appliance or material, it was hard that because he had any interest in it his client should be debarred using it; and yet the architect might not be able to afford to forgo any return for the time and expenditure employed. Quoting his own experience again, some years ago he was interested in a patent, and he employed it with the full knowledge of his client as to the extent of his interest. Why should he not? It would surely be very undesirable for the Council to impose some restriction which they did not rigidly enforce, and which perhaps some of themselves might not feel disposed literally to comply with. Such a restriction did not, he believed, exist in the medical profession, and he did not think it should do so in architecture so long as an architect acted straightforwardly with his clients; and if an architect could not be trusted to do so without such a restriction no clause that could be inserted would control him.

MR. BROWN: May I ask if this Declaration is retrospective?

THE CHAIRMAN: It would be desirable if it could be.

MR. SATCHELL: You could not have two classes of Fellows at the same time: those that submit to the new Declaration although they have not signed it, and those that submit because they have signed it.

MR. BROWN: I submit that a man who joins the Insti-

tute and signs this Declaration must absolutely carry it out. I have not signed it, neither have I invented anything. That is the distinction I wish to draw. I would suggest that after the word "or" you put in the word "directly," so as to read "I promise that I will not have any interest in any contract, or directly in any materials."

THE CHAIRMAN: That is very dangerous. I realise, however, that there is a difficulty from what Mr. Satchell has said. Could we deal with it by saying after the word "engaged," instead of what I previously said, "unless the fact is disclosed in writing to the client"?

MR. MAX CLARKE: I have written down a paragraph: "unless as a shareholder in any limited liability company, in which case the fact should be disclosed to the clients and their written sanction obtained to the use of the specified material."

THE CHAIRMAN: You need not get their written sanction so long as it is disclosed in writing.

MR. GARBUTT: With regard to my own remarks, I should like to be permitted to state that I have no interest in any trading concern whatever.

MR. ERNEST NEWTON: I think it should be either in or out entirely. Has it been found to work very badly before? Have you had to remonstrate with many members for recommending materials? I have no shares in anything; but I have a great sympathy with what Mr. Satchell says.

THE CHAIRMAN: We have not had that particular clause in before. It is quite fair to the client if it is stated in writing to him.

MR. ERNEST NEWTON: I think, if you state it in writing to the client, you might as well give it up altogether, because, the very moment you state it in writing, the client would say: "There is something in this, and I will not have it." Presumably an architect would not go in for these things if he did not think they were good.

THE CHAIRMAN: But that opens the door to all kinds of dishonesty by dishonest people. If it is disclosed to the client in writing, then it is all above board; but if it is not disclosed in writing, unless there is a strong clause like this, it is opening the door to a most reprehensible practice.

MR. SHEPHERD: Would there not be a difficulty with regard to the client? Supposing a man was dealing with a Council, consisting of a dozen men or so, he might find himself in a very difficult position, for one or other of them would be certain to have the idea that the architect would not be without some interest in what he was specifying.

THE CHAIRMAN: Having had a good deal of experience with public bodies, I can only say that you should never allow anything to be specified in which you have the remotest interest directly or indirectly.

MR. SAXON SNELL: I think your experience has been the experience of a good many of us, and I suggest that the clause should be left as it is. If you give the clients an idea that you have an interest, no matter what you say, they will still think that somehow or other you are getting an illicit commission. I think we should keep out of any connection whatever with anything in the specification; no matter how honourable a man may feel, if he has an interest in anything he is bound to have a slight bias towards it. That is the reason why personally, although, like Mr. Satchell, I have invented one or two things, I have never patented anything and never would.

MR. MOWBRAY GRIFFIN: A good deal has been said about clients, but I should like some protection against the secretary of a company who, seeing that I have shares in his company, insists that I shall specify their goods. I would like the declaration to stand, because it prevents me investing, and I should not get worried by such men.

MR. STATHAM: I entirely agree with the last speaker. I would advise most strongly that it should be retained as it stands. The profession cannot keep itself too clear from the slightest suspicion.

MR. JEMMETT: Might I second that?

THE CHAIRMAN: Does anybody propose an addition? Is there any motion to add to the words in the print? There is not; therefore they stand. I am personally glad, because I think it is better.

MR. ERNEST NEWTON: I should like to call attention to the part of the Declaration which says, "I further promise that I will not take part in any competition the conditions of which have been disapproved by the Council." I think that should come out of the Declaration altogether; going in for a competition the conditions of which have been disapproved is certainly an offence, but the others are crimes, and it seems to me that you are making an offence which is sufficiently guarded by a former By-law too prominent altogether.

THE CHAIRMAN: Is that seconded?—It is not seconded, and therefore falls.

MR. GARBUTT: Do I understand that the whole of the suggestions I made are settled by what has been voted upon—for instance, with regard to paying for the introduction of professional work?

MR. E. GUY DAWBER: Is not that covered by the third line of the Declaration?

THE CHAIRMAN: Mr. Garbutt's point is that you should not pay anybody for giving you a job. A man may not pay in money, but he may pay in some other way, and it is a very difficult thing to do anything with. I think the Declaration is pretty wide as it is.

MR. BOLTON: If the Institution of Civil Engineers think it worth while to put that in might we not consider it too?

THE CHAIRMAN: They have not passed it, and I do not know whether they are going to, but it does not seem to me necessary.

MR. BRODIE: It seems to me that you have got it in because a man says he will not give any surreptitious commission.

THE CHAIRMAN: Then that covers it.

MR. JEMMETT: Is the sentence about competitions to be retrospective, so as to bind the present Fellows not to compete, as they ought most distinctly to be bound, or would the Council undertake to pass and publish a resolution which will bind them, so that we should all be on the same level?

A MEMBER: Surely, if we remain in the Institute after the By-laws are passed we are bound by them?

THE CHAIRMAN: You do not accept the Declaration unless you sign it.

MR. TUBBS: I think we have bound ourselves to accept any modification of the By-laws.

THE CHAIRMAN: But not the Declaration I am afraid. I can only say that, in my opinion, if this Declaration is passed, if any existing Fellow acts contrary to it the Council would call upon him to resign.

MR. MIDDLETON: Would he not then come under By-law 24 as conducting himself in a manner which, in the opinion of the Council, is derogatory to his professional character?

THE CHAIRMAN: "Or refusing or neglecting to be bound by a published Resolution of the Council." Yes; By-law 24 quite covers that point. If, therefore, the Council publishes a Resolution that a certain competition is not to be entered into, a member who disregards it would undoubtedly come under By-law 24.

MR. JEMMETT: That is so, but I ask if the Council would not undertake to publish such a resolution, in order to bring us all into line with this Declaration.

MR. BRODIE: I suppose it is in the actual By-law we are discussing now: No. 82.

THE CHAIRMAN: This is a Declaration to be signed by a Fellow, and that would mean all new Fellows. Still, I think the point is covered by No. 24. This is not a By-law; the number, 82, must come out.

MR. HORSFIELD: Could a resolution be passed which would bring the whole of this Declaration under No. 24?

Mr. CROW: Surely the Council could pass a resolution to the effect that the Declaration made by new members shall be simply binding on existing members. May I put that forward as a recommendation to the Council?

THE CHAIRMAN: Is that is the general feeling of the Meeting it shall be reported to the Council.

Mr. PROBERT: However much it may be to have two sets of Fellows bound by two different sets of conditions, it is surely in conformity with the intention of the Statute and of the membership on one Declaration and then with the consent to substitute another Declaration and thereafter with expulsion unless he conforms to it. It will not affect me personally, but it does not seem reasonable.

THE CHAIRMAN: I must say that my sympathy is with the other view—namely this obligation is binding on all Fellows whether they have signed it or not.

Mr. HOSKING: Might I point out that members have undertaken to be bound by modifications of the By-laws?

Mr. SUTTON: I hope all the provisions will be considered by the Council at the same time. I view the question of the Declaration as a very serious matter, and one which might concern me closely, even possibly to the extent of my resigning my membership. I cannot avoid the position in which I find myself, mainly as a trustee, and therefore must be rather severely situated. It would be a serious matter for the Council to stigmatise a number of members who have acted strictly in accordance with such Declaration in the past because it becomes necessary to control those who might not act so straightforwardly in the future.

THE CHAIRMAN stated that the matter must go to the Council, who would duly consider Mr. Satchell's views.

Declarations B, C, and D were also referred back on the same point.

The Chairman closed the discussion of the By-laws. At the request of the Chairman, the Secretary read a demand for a poll to be taken by voting-papers on the question of the adoption of the resolution passed at the Meeting of the 14th June limiting the period of service of Members of Council.

THE CHAIRMAN having stated that the requisition was in order, the Meeting authorised the Council to appoint Secretaries to examine the voting-papers returned, and report to the next General Meeting.

THE CHAIRMAN further announced that by resolution of the Council the Session had been extended to the end of July and that the Declarations and the various By-laws referred back should be brought before the next Meeting.

THE CHAIRMAN, replying to Mr. Shepherd, stated that under Clause 33 of the Charter the Special Meeting for the consideration of the resolution adopting the By-laws as revised must be held not less than seven nor more than twenty-eight days after the Meeting at which the Resolution was passed.

Mr. J. G. MILES: Will amendments be in order at the next meeting?

THE CHAIRMAN: Only in connection with By-laws which have been referred back.

The Adjourned Meeting was held Wednesday 21st July, when the various By-laws and Declarations which had been referred back to and further amended by the Council [see *Supplement* 16A, 14th July] having been considered and adopted subject to amendments resolved upon by the Meeting, the Revised By-laws as amended at the various meetings were put as a whole and adopted, and the Council were authorised to take the necessary steps to obtain for them the approval of the Privy Council. The Minutes of this meeting and the

report of the discussion will be published in the next issue. A Special General Meeting to confirm, or otherwise, the Resolution of adoption has been called for Thursday, the 29th July.

MINUTES. XVII.

ADJOURNED SPECIAL GENERAL MEETING (By-laws)
23rd June, 1909.

At an Adjourned Special General Meeting for the consideration of the Draft By-laws under the new Supplemental Charter held Wednesday, 23rd June, 1909, at 5.30 p.m.: Present, Mr. James S. Gibson, *Vice-President*, in the Chair, 31 Fellows (including 5 Members of the Council and 11 Associates) the Minutes of the Meeting held Monday 14th June (*ibid.*, p. 612) were read and signed as correct.

Mr. Max Clarke [*F.*], referring to the Resolution on By-law 31 passed at the previous Meeting and pointing out that no indication was given therein as to the proportion respectively of Ordinary and Associate-Members of Council to be ineligible for re-election, the Meeting agreed that one-sixth of each class *viz.* three Fellows and one Associate, should be ineligible.

On the motion of Mr. A. R. Jennett [*F.*], seconded by Mr. F. R. Farrow [*F.*], it was

Resolved, That neither of the Past Presidents shall be eligible to serve on the Council for more than three successive years.

The following amendments were agreed to in No. 32:

Line 6 of Draft: The House List to contain names of eight Associates instead of "six."

Line 5 from end: Associate-Members to be "six" instead of "ten" so as to accord with No. 27 as revised.

Line 9, Number of members nominating fresh candidates not to be altered as proposed, but to remain "seven" as in the existing By-law.

Line 17: Footnote on the back of the list "read on this list."

Lines 19-21, Omit sentence providing for election of nine scrutineers by Annual General Meeting, and insert: "The Scrutineers shall be appointed by the Council."

The concluding sentence to be altered so as to provide for the Council's remaining in office "until the last day in June."

On the motion of Mr. George Hubbard, F.S.A. [*F.*], seconded by Mr. Leonard Stokes, *Vice-President*, it was

Resolved, That the following provision be inserted in By-law 32: "No other document or communication besides the voting-papers, directions for their use and the envelope within which they are to be returned, shall be issued therewith."

A proposal by Mr. F. R. Farrow [*F.*], seconded by Mr. Max Clarke [*F.*], *viz.* to add "(b)" after "ten" in line 11 of No. 32 in order to give members an opportunity of nominating Past Presidents other than those nominated by the Council, was rejected.

By-law 32 as amended was then put as a whole and carried.

By-law 33 was agreed to, subject to an amendment in the concluding paragraph to accord with a preceding resolution that the Council shall remain in office until the last day in the following June.

By-laws 34 and 35 were respectively put and agreed to.

A suggestion having been made by Mr. G. A. F. Middleton [*A.*], that a new By-law should be inserted dealing with the powers of the officers of the Institute with regard to issuing circulars, as resolved upon at the Business Meeting of the 7th June, it was agreed, upon the motion of Mr.

Leonard Stokes, seconded by Mr. John Murray [F.], that the matter should be referred to the Council with a view to a By-law being drafted and submitted to the Meeting.

Nos. 36, 37, 38, 39, 40, 41, 42, and 43 were agreed to as drafted.

No. 44 having been amended by the Council since the issue of the original draft, the Secretary read the new Draft as follows: "The Council shall annually appoint a Board of Architectural Education to deal with the education of pupils in architecture, and to conduct such examinations as are required by the Royal Institute under the provisions of any Act of Parliament or of the Charters and By-laws. The Board shall not exceed sixteen in number, inclusive of the President, who shall be an *ex officio* member, and shall consist of such subscribing members of the Royal Institute and such other persons as the Council may invite. The Council may, on the advice of the Board, invite other representative persons to act as advisory members of such Board. The Board shall have power to elect its own officers from its members and to draw up regulations for its procedure. The Board may conduct its own correspondence, but shall take no public action nor incur any pecuniary responsibility. The Board shall submit any scheme they may devise for education and examination to the Council for their consideration, and if and when the Council shall approve such scheme the Board shall have the supervision thereof and shall annually report to the Council thereon, and may submit any suggestions for variations thereof to the Council for their consideration. The scheme adopted by the Council and any variation thereof adopted by the Council from time to time shall be forthwith published in the JOURNAL of the Royal Institute. No such variation shall in any way prejudice any pupil in respect of any work done by him under the scheme existing previous to such variation. Every Student who has passed the examination for that grade, instituted or to be instituted by the Royal Institute, and shall have satisfied such other requirements as the Council may from time to time prescribe as applying to Students, shall be entitled to be registered as "Student of the Royal Institute of British Architects," subject to such conditions and to such restrictions as to continuance as the Council may determine; and a register of such Students shall be kept setting forth their names in the chronological order in which they have passed."

The motion for the adoption of the By-law as above amended being put, and there voting 18 for and 12 against it, the Chairman declared the motion lost from want of the two-thirds majority required under By-law 62.

The Meeting having adjourned at 7 p.m., the debate was resumed at 8.45, at the conclusion of the Special Meeting on the Premises question [see Minutes, p. 612].

Some discussion taking place as to the situation brought about by the vote above recorded respecting the amended draft By-law 44, the Chairman announced that the Council would reconsider the matter with a view to bringing the By-law forward in an amended form at an adjourned meeting, and that meanwhile the new proposal should be circulated among members.

No. 45 depending on the immediately preceding By-law was also referred back.

Nos. 46 and 47 were agreed to as printed.

On No. 48, dealing with the constitution of the Standing Committees, a proposal by Mr. Arthur Crow [F.], seconded by Mr. F. T. W. Goldsmith [F.], viz. that members to be co-opted by the Council should include a member of the Council for each Committee—was agreed to, and it was

RESOLVED, That the following words be added to By-law 48: "at least one of whom shall be a member of the Council."

On the same By-law, on the motion of Mr. C. H. Brodie [F.], seconded by Mr. A. R. Jemmett [F.], it was

RESOLVED, That the following provision be added to By-law 48—viz. "No member shall be eligible for

election or appointment on more than one Standing Committee in any one year."

On the same By-law, on the motion of Mr. C. H. Brodie, seconded by Mr. F. T. W. Goldsmith, it was

RESOLVED, That it be provided in By-law 48 that no member shall serve on the same Committee for more than six successive years.

No. 48, as amended, was then put as a whole and carried. On No. 49 a proposition was brought forward by Mr. A. Saxon Snell [F.], to delete the last sentence and add the following: "Provided that in case the Council reject or fail to act upon any such report or suggestion the Committee may through its Chairman make a communication or submit a resolution thereon at any General Business Meeting." The proposition, having been duly seconded, was rejected upon a show of hands.

No. 49 was then put and carried as printed.

On No. 50, a proposition by Mr. Max Clarke [F.], seconded by Mr. Maurice B. Adams [F.], was agreed to, and it was

RESOLVED, That the following provision be inserted in By-law 50: "No Chairman of a Standing Committee who has filled the office for two consecutive years shall be again eligible for the Chairmanship until the expiration of two years from the termination of his tenure of office."

On the same By-law, line 1, a proposition by Mr. C. H. Brodie was agreed to, that the words "have the right to" be omitted.

On the same By-law, lines 5 and 6, a proposition by Mr. C. H. Brodie, seconded by Mr. Max Clarke, was agreed to, and it was resolved that the words "subject in all cases to the convenience of the Council" be omitted.

No. 50 as amended was then put as a whole and carried.

Nos. 51, 52, 53, and 54 were agreed to as printed.

On No. 55, an amendment by Mr. Arthur Crow, seconded by Mr. A. R. Jemmett, was agreed to, and it was

RESOLVED, That the quorum at General Meetings remain at 20, as in the existing By-law.

No. 55, as amended, was then put and carried.

Nos. 56 and 57 were agreed to as printed.

No. 58 was agreed to subject to the insertion in line 6 of the words "in writing" after "given."

Nos. 59 and 60 were agreed to as printed.

No. 61 depending as regards the appointment of Examiners on No. 44 was agreed to be referred back to the Council to be considered by them in connection with that By-law.

On No. 62 a proposition by Mr. Max Clarke, duly seconded, was agreed to, that the number of requisitionists for a Special General Meeting remain at twelve, as in the existing By-law.

On the same By-law, on the motion of Mr. Max Clarke, duly seconded, it was

RESOLVED, That the following words be omitted from By-law 62—viz. "Any member desiring to propose an amendment at such Meeting must specify the same in a notice to be delivered to the Secretary at least three days before the proposed Meeting."

On the same By-law, on the motion of Mr. H. A. Satchell, seconded by Mr. Arthur Crow, it was resolved that the quorum referred to be thirty, of whom at least sixteen shall be Fellows.

No. 62, as amended, was then put and carried.

No. 63 was agreed to as printed.

On No. 64, a proposition by Mr. A. R. Jemmett, duly seconded—viz. that the number of Fellows who may propose the adoption of any new By-law, &c., remain at twelve as in the existing By-law—was rejected upon a show of hands. The By-law as originally drafted was then put and agreed to.

At 10 o'clock the Chairman adjourned the meeting until Monday, 28th June, at 5.30.

ADJOURNED SPECIAL GENERAL MEETING (BY-LAWS),
28th JUNE 1909

At an Adjourned Special General Meeting for the consideration of the Draft By-laws, held Monday, 28th June 1909, at 5.30 p.m.—Present: Mr. Edwin T. Hall, *President*, in the Chair: 28 Fellows (including 10 members of the Council) and 11 Associates (including 1 member of the Council); the Minutes of the Meeting held Wednesday, 23rd June *see above*, having been read were amended in the following two items on the motions respectively of Mr. Arthur Chow *[F.]* and Mr. Ernest Newton *[F.]*:

1. Insert in the last resolution on No. 48 the words "at least 20 so as to read: *at least* one of whom shall be a member of the Council."

2. Repeal the fact that By-law 48 had been put from the Chair and carried as amended.

The Minutes were then signed as correct.

On No. 65, the proposal in the Draft that the quorum for a Special General Meeting when a resolution on the By-laws is in question should be 40 Fellows was put to the Meeting and carried.

On the same By-law, an amendment that the number required to pass a resolution on the By-laws should be "a majority consisting of two-thirds of the Fellows—present and voting" was agreed to on a show of hands—20 for, 2 against.

On the same By-law, the proposal in the Draft that the demand for a poll must be made by at least 20 Fellows was put to the Meeting and agreed to.

On the same By-law, the Chairman accepted a suggestion that the final sentence of the proviso in the first clause should form part of the preceding sentence, reading, after the word "papers," "or it shall be suspended."

On the same By-law it was agreed that the second clause should be divided into two paragraphs—the first paragraph dealing with a resolution affecting property or management of the Institute, with a quorum consisting of fifty members, of whom at least forty shall be Fellows, the resolution to be supported by a majority consisting of at least two-thirds of those present having a right to vote and voting thereon. The second paragraph to deal with a resolution on any professional question, the quorum to consist of forty members of whom at least twenty-one shall be Fellows, the resolution to be supported by a majority consisting of at least two-thirds of those present having a right to vote and voting thereon.

A proposition, moved by Mr. A. R. Jemmett *[F.]*, and seconded by Mr. George Hubbard *[F.]*,—viz. that a resolution passed at a General Meeting, subject to the Council's challenging it by voting papers, shall be binding on the Council—was rejected on a show of hands.

By-law 65 was then referred back to the Council to embody the amendments and submit the revised Draft to the next General Meeting.

The Meeting adjourned at 7.10, and re-assembled at 8.40.

By-laws 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, and 81 were agreed to as printed.

The Declarations A, B, C, D, which were next considered, met with general support as printed, but on the representation of Mr. H. A. Satchell *[F.]*, that members acting as trustees or funds invested in trading concerns might feel bound to resign their membership on account of their inability to subscribe the undertaking "not to have any interest in any contract or in any materials supplied to any works on which they were engaged," the Chairman stated that the point should be considered by the Council, and that Mr. Satchell's views should be laid before them.

The Chairman further undertook to report to the Council a suggestion that they should consider the advisability of passing and publishing a resolution to the effect that the declarations subscribed by new members should be equally binding on existing members.

The Chairman announced that the Council had by resolution extended the Session to the end of July.

Announcement was made that a requisition had been received for a poll to be taken by voting papers on the question of the adoption of the resolution passed at the Meeting of the 14th June limiting the period of service of members of the Council, and the Meeting gave authority to the Council to appoint Scrutineers to examine the returns and report the result to the next General Meeting.

The Meeting adjourned at 10 p.m.

SPECIAL GENERAL MEETING (PROMISES),
21st JULY 1909.

At a Special General Meeting (Promises) held Wednesday, 21st July, 1909, at 8 p.m.—Present: Mr. John Slater *[F.]*, in the Chair: 33 Fellows (including 9 members of the Council), and 9 Associates; the Minutes of the Special General Meeting (Promises), held 23rd June 1909, p. 612, were taken as read and signed as correct.

On the motion of the Chairman, it was

RESOLVED, unanimously, That this Meeting confirms the Resolution passed at the Special General Meeting of the 23rd June—viz. "That the Council be authorised to enter into a contract on behalf of the Institute, in a form to be approved by the Solicitor of the Institute, for the purchase by the Institute of the leasehold interest of Messrs. Knight, Frank and Rutley in parts of Nos. 9 and 11 Conduit Street and No. 23A Maddox Street, at a price not exceeding £10,000, and to carry out and complete the purchase; and that the Council be authorised to raise out of the funds of the Institute such sum not exceeding £10,000 as may be required for the purchase of the said leasehold interest."

This concluded the business for which the Meeting had been summoned.

On the occasion of the recent opening by His Majesty of the Victoria and Albert Museum, Sir Aston Webb, R.A. *[F.]*, architect of the buildings, was made a Companion of the Bath (C.B.); and Mr. Cecil Smith, LL.D. *[H.A.]*, Director of the Museum, received the honour of knighthood.

Mr. Frederick Bligh Bond *[F.]*, director of the Excavations at Glastonbury Abbey, has been elected diocesan architect for Bath and Wells.

Mr. George Hubbard, F.S.A. *[F.]*, has been awarded a silver medal by the Royal Society of Arts for his Paper on "Dew Ponds" recently read before that body.

Mr. H. A. Crouch *[A.]*, *Tite Prize*man 1895, has been appointed consulting architect to the Government of Bombay.

Mr. J. Hubert Worthington, B.A., whose name appears in the Honours degree list of the Victoria University as a first class in architecture, is a pupil of his brother, Mr. Percy Scott Worthington *[F.]*, President of the Manchester Society of Architects, and a younger son of Mr. Thomas Worthington, Alderley Edge, a Past Vice-President and for many years a Member of Council of the Institute.



S. SABINA.

Photo D. Anderson Rome

EARLY ROMAN CHURCHES.

By ARTHUR S. DIXON, M.A.Oxon. [*F.*]

Read before the Birmingham Architectural Association, 22nd February 1909.

FOR three-and-a-half centuries the church of S. Peter has been the goal of Christian pilgrims to Rome. It is the building which claims the first attention of the stranger who visits the centre of Christendom for the first time. Its vast spaces, its gilded vaults and marble walls, make it the most magnificent and most famous building of Europe; and Christianity presents itself in so many different aspects to different minds that it would be imprudent to express a definite opinion as to the impression which it makes upon the greater number of those who enter its doors for the purpose of worship or for the sake of curiosity. The worship of holy men, the countless feet of pilgrims and their countless prayers have given it a sanctity which has become in some sense a part of the stones of which it is built: but the actual language of the stones themselves is rather the language of human pride than of heavenly worship. In other countries, the buildings of the Renaissance, at least those of the earliest Renaissance, were not without spiritual significance: but in Rome it almost seems as if with the beginning of the revival of the classic styles the angels flew away. During the five centuries before the Renaissance the Romanesque and Gothic styles of northern Europe were born and evolved, and wore themselves out; in Rome there is only one church of Gothic character. It was between the end of the third century and the end of the ninth, that the churches were built of which I propose to speak.

During the first three centuries of the Christian era, Christianity was proscribed and from time to time persecuted. Worship took place to some extent in the chapels and tombs of the catacombs, to a larger extent in the private houses and basilicas of converts, and as time went on probably in the scholae or guildhalls of religious and other societies. A few churches were built before the end of the third century, but there are not records of more than three or four, and of these only very scanty remains can now be recognised. It was in the early part of the fourth century, the time of the peace of the Church as it was called, when Christianity had been recognised and was protected by the Emperor Constantine, that the first great outburst of Christian building took place. After this period, in the intervals of the Barbarian invasions, during the Gothic and Lombardic wars, and in the time when continual conflict with Byzantium gradually settled and formulated the doctrinal position of the Church, churches were built from time to time: and a second architectural outburst took place in the ninth century, when the power of Charles the Great brought a new peace and prosperity to the Church. It must be said, however, that the activity of this latter period took the form not so much of new buildings as of the rebuilding and decoration of churches already in existence.

The first Christian church built in Rome was probably the *Ecclesia Pudentiana*, now called *S. Pudenziana*. It is associated with the story of S. Peter, who is said to have come to Rome in the year 42. He lodged first with Aquila and Priscilla in their house on the Aventine, now occupied by the Church of S. Prisca; afterwards with the Senator Pudens, who was possibly the son of Priscilla, in the *Vicus Patricius*. It is probable that Pudens' house was afterwards used as a place for the meeting and worship of Christians. The church called after him was built on the site of the baths of Novatus, one of Pudens' sons, which were adjacent to his house. It was certainly in existence in the fourth century, but the present interior is a restoration of the sixteenth century, and the façade looks like work of the ninth and eleventh centuries. Pudens had two daughters, *Pudenziana* and *Prasede*, and in the same neighbourhood a church called after the latter was built in the fifth century.

Before the fourth century the Churches of S. Cecilia and S. Maria in Trastevere were also in existence, on the island in the Tiber. S. Cecilia's story is told by Chaucer in the 'Second Nun's Tale.' The church was originally built on the site of the house of S. Cecilia's husband Valerian, but it was entirely rebuilt in the ninth century.

In the early part of the sixth century the following churches were built by or under Constantine:—

The Lateran Basilica, now called *S. Giovanni in Laterano*, on the site of the palace of the family of the Laterani. Here was the first palace of the popes. The ancient church has given place to a Renaissance building.

S. Pietro in Vaticano, on the Vatican Hill. The original basilica has entirely disappeared. It was built on the site of Nero's circus near his palace, where S. Peter was crucified.

S. Paolo fuori le mura, built near the site of the martyrdom of S. Paul, near the third milestone on the Ostian Way.

S. Croce in Gerusalemme.

S. Agnese fuori le mura: S. Agnes was martyred for refusing to marry a pagan. The church was built under Constantine in the fourth century and has several times been restored. The cemetery or catacombs go back to before the third century.

S. Lorenzo: S. Laurence the deacon was burnt on an iron grid for refusing to give up the treasures of the church. The eastern part of the present church is the original basilica built in the fourth century under Constantine: the western nave was added in the fifth century with its façade, and the portico was added in the thirteenth century.

S. Marco,

S. Maria Maggiore, built by Pope Liberius in 352, and called *Basilica Liberiana*: a monument of the Nicæan faith. The façade is of the eighteenth century.

In the fifth century were built:

S. Sabina: *S. Sabina* was a Roman matron martyred in the second century. The church is of the fifth century. The columns were taken from some classic building.

S. Prassede.

SS. Giovanni e Paolo, originally called *Basilica Pammachii*. Two brothers who fought in the Gallic war under Constantine, and were martyred under Julian the Apostate. They lived in a house on the site of the church.

S. Clemente, called after the third Bishop of Rome. This church, though much altered, is one of the best examples of the ritual arrangements of the early times. It consists of a nave with aisles separated by an arcade in sets of five arches on round pillars. It has an apse at the *west* end, on the axis of which is the high altar, surmounted by a baldachino square on plan on four marble pillars. Under the altar is the *confessio* or crypt in which the relics of the patron saint were deposited: it is approached by a flight of steps passing under the altar. In front, surrounded by a marble fence about four feet high, is the choir or *schola cantorum*, on the south side of which is the gospel *ambo* or pulpit with a marble desk from which the Gospel is read. This desk faces north, and the Gospel was read facing north, with the symbolical suggestion that the unconverted people were the barbarian tribes of the north. On the north side is the epistle *ambo* from which the epistle is read facing towards the altar. Both these positions are still maintained in modern ritual.

The arrangement of *S. Clemente* suggests the question of the orientation of the early churches. In Rome orientation is very irregular. Churches are found facing in all directions, some east, some west, and some to other points of the compass, with more or less of east or west in their position. There is much difference of opinion as to the explanation. One view is, that although there was a distinct rule laid down in the Apostolic Constitutions, that the apse was to be at the east end, the rule was very loosely observed, and difficulties of site were allowed to modify its application: also that the fact that Constantine's churches are distinguished by what I may be allowed to call westward orientation, may be explained by supposing him to have had a peculiar fancy for this arrangement, possibly due to his Eastern education. Another view, which appears to fit the facts more closely, is that the important point was not so much the position of the church as that of the minister; that is, that it was essential that the celebrant at mass should face eastwards. Now in the earliest churches, as in *S. Clemente*, mass was said from behind the altar; any other position was indeed made impossible by the stairs to the *confessio* which occupied the side of the altar facing the nave: and it is clear that in a church so arranged, in order that the celebrant might face eastwards the altar had to be at the west end. When, however, the *confessio* ceased to be approached by steps in front of the altar, mass came to be said as it is now on the nave side, and the altar had for the same reason to be at the east end, and the eastward position of the apse became more and more general.

The fact that the passage in the Apostolic Constitutions which prescribes the eastern position of the apse was probably written in the fifth century, tends to confirm this view, and indicates that the change of orientation took place at about that time. The passage is an interesting one. It compares a church to a ship. “*Let the building be long with its head to the east, and with its vestries on both sides at the east end, and so it will be like a ship,*” and this passage may be compared with one in the epistle of *S. Clement* to *S. James* (first century) which carries the metaphor of the ship further still. “*The whole business of the Church is like a great ship bearing through a violent storm men who are of many places, and who desire*

to inhabit the city of the Good Kingdom." There are one or two curious cases, as in the lower church at Assisi, where there is what might be called a double altar with the candlesticks in the centre, from either side of which mass is said at different times.

SS. Nereo ed Achilleo, originally called *Basilica Fasciolae*. The meaning of the original name is not known. The present ascription is to two chamberlains of Flavia Domitilla, grand-niece of the Emperor Domitian. She was a Christian, and was persuaded by her chamberlains to refuse marriage with Aurelian, a pagan, for which she and they suffered martyrdom. The general plan of the church is very much like that of *S. Clemente*, but there is no *schola cantorum*, and the Gospel and epistle desks are placed on a low sanctuary screen



S. CLEMENTE, INTERIOR.

Photo by Anderson Rome

facing the nave. The church was rebuilt in the fifteenth century and afterwards again restored.

SS. Cosma e Damiano. This church was built in the sixth century in honour of two Arabian physicians, who were martyred in Arabia under Diocletian. They seem to have represented in Rome as elsewhere the ideal physician, and this church was formed partly out of a temple at or near the site of the house of the physician Galen.

SS. IV Incoronati. This is a church of the seventh century. In front of the arch over the apse there is another arch decorated like the apse arch; this is called the arch of triumph, and is of common occurrence. The four crowned ones or martyrs were artificers, sculptors and architects, who suffered under Diocletian for refusing to exercise their art in the building of pagan temples.

S. Costanza. A round church of the time of Constantine the Great. It was the Imperial Mausoleum and may have been also used as a baptistery. It contains the most ancient Christian mosaics.

All the churches which have been shown, except that of *S. Costanza*, are of the basilican

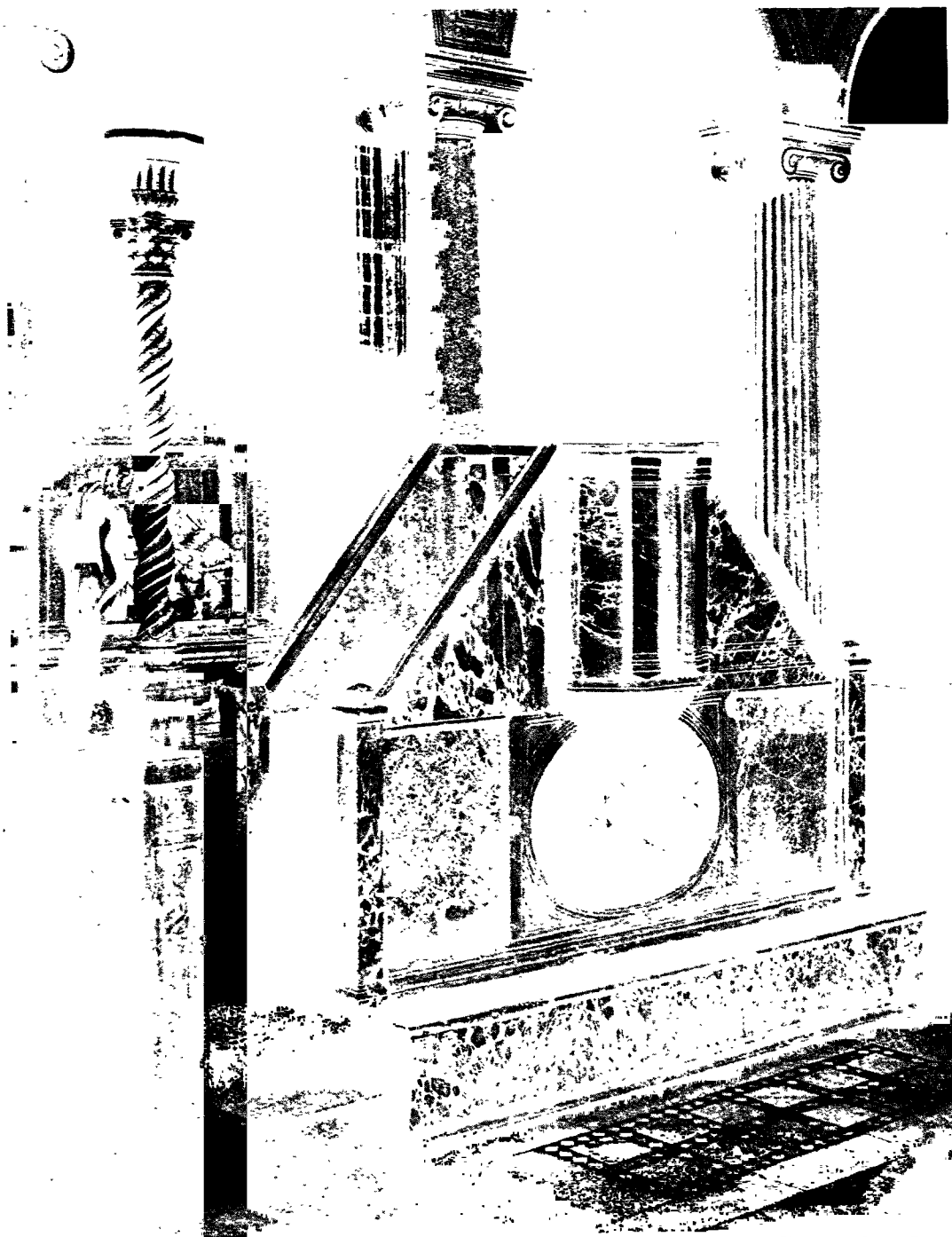


Photo D. Anderson Rome.

form. There has been much discussion as to the origin of this form of church. Between the apse, which is one of its distinguishing features, and one form of tomb in the catacombs there is a certain correspondence. The usual form of sepulchre was a horizontal niche, but more important burials took place in what were called "arcosolia," arched recesses, in which was placed an altar tomb, as the altar with its *confessio* is placed in the apse. Some of the catacombs also have plans very similar to the basilican form of church. Professor Baldwin Brown * ascribes the origin of the basilican church partly to the *scholæ* or guildhalls; it is known that worship also took place in the houses of patrician converts in which there were halls used for judicial purposes like in form to the public basilicas, and the *scholæ* were probably on a similar plan. †

At one end of the pagan basilica was the apse, in the centre of which was the curule chair for the praetor or prefect, and on either side, following the curve of the apse, seats for the judges and advocates. In front of the curule chair was a table. The magistrate entered the hall in procession, and before him were borne lighted candles and the Liber Mandatorum, the book of the Emperor's decrees, which was placed on the table. On either side of the nave were aisles separated by colonnades, where clerks and lawyers had their seats and tables: in the nave came and went litigants and the public.

Such buildings required little adaptation to Christian worship. The bishop and clergy took the seats of the prefect and judges: where had been the prefect's table now stood the altar. The book of the Gospels took the place of the Liber Mandatorum, and candles were carried in the bishop's procession, as they had been in that of the prefect, and placed on the altar.

The Roman basilicas were built of red brick, the ordinary Roman building material; outside they were sometimes left plain, sometimes plastered: inside also they were plastered when marble plates or mosaic were not used. The roofs were of low pitch, covered with red tiles: the tiles are half round channels set alternately convex and concavely interlocking each other, and carried on king or queen post trusses. On some of the tie beams, purlins, and rafters, are to be seen remains of coloured decoration in small geometrical patterns: in other cases there is a flat boarded or panelled ceiling, also decorated in colour, under the trusses. The clerestory wall, pierced with small square or round-headed windows, was carried in the earliest buildings on colonnades of marble pillars often taken from pagan temples or brought over sea, from the east: later, arcades of small round arches took the place of the horizontal entablature over the columns. The floors were covered with marble mosaic work composed of pieces of red, green, and white marble three or four inches square set in a great variety of geometric patterns; and the apse, the arch over it, and the triumphal arch, sometimes also the clerestory walls, were decorated with pictures in glass mosaic. It was in the mosaic decoration of the apse and arches that early Christian architecture in Rome found scope for its spiritual and expressive side. It is here we must look for the reflection of the mind of early Christianity. The speech of the mosaics is partly direct, partly symbolic: the symbolism is a continuation or development of that of the catacombs, which may for a few minutes occupy our attention.

The decoration of the catacombs took the form of pictures and graffiti, drawings cut on stone in outline, to which may be added fragments of decorated glass which were found there in considerable quantity. These fragments of glass were generally the bottom pieces of bottles and saucers, possibly used sometimes in the catacombs for sacramental purposes, more often

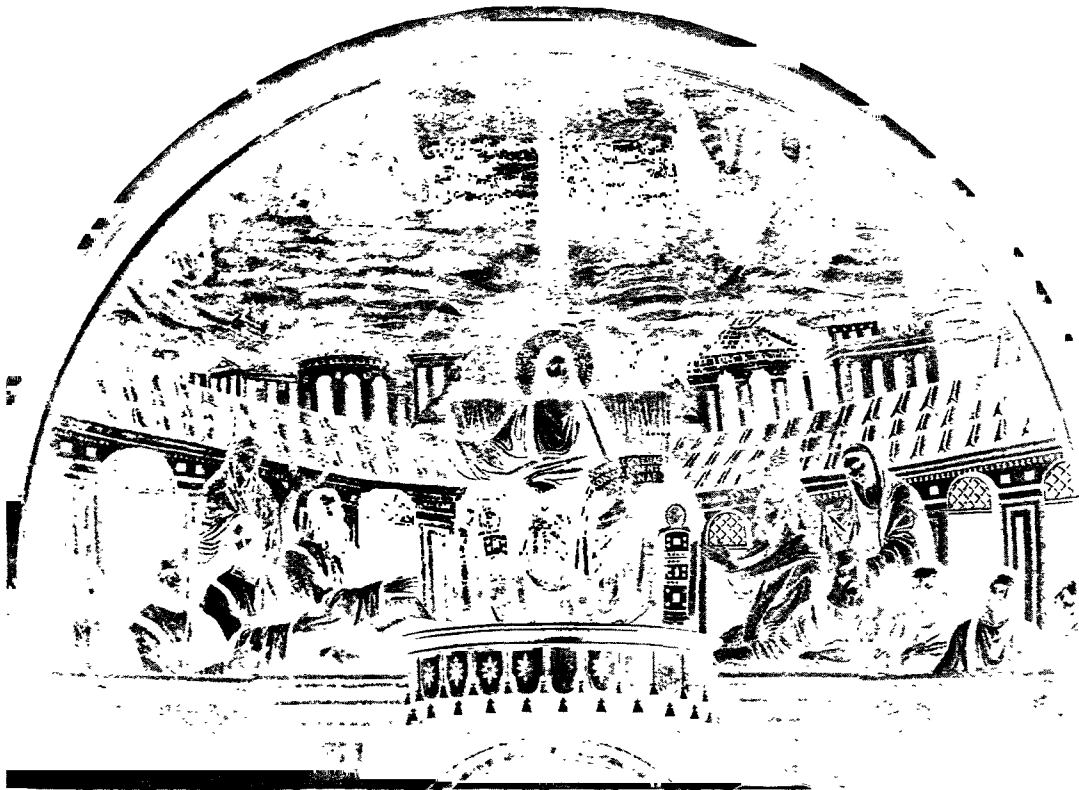
* *From Synagogue to Cathedral*. Edinburgh 1886.

† The private basilica in the palace of Domitian had a semicircular tribunal, perhaps an apse at the side, and a double colonnade; so had the Xenodochium of Pammachius at Porto. The pagan basilica at Ostia had an apse and a double colonnade: Trajan's basilica had an apse and four

rows of columns: Vitruvius, in his description of a basilica, gives an apse at either end: the basilica of Maxentius also had two apses, one at the end and one on one side: the latter, however, having a vaulted instead of a timber roof has a quite different arrangement of piers.

things of domestic use. They were decorated sometimes with engraving in outline, or figures cut in relief; but the commonest kind of decoration seems to have been a piece of gold leaf affixed to the glass on which drawings were made with a sharp instrument in outline and protected with a film of glass laid on after the drawing was made. These pieces of glass have been found stuck on to the plaster outside sepulchral niches, perhaps for purpose of identification.

One would not unnaturally expect that the subject uppermost in the minds of the Christians of the first three centuries would be the persecutions and martyrdoms which from time to time they suffered: and one might be inclined, at the first blush at any rate, to expect to find the sufferings of the martyrs depicted on their tombs. There are, however, two good reasons why this should not have been the case. In the first place, open identification with the proscribed



S. PUDENZIANA, MOSAIC OF THE APSE, FOURTH CENTURY

Photo D. Anderson, Rome

Christian sect even in such comparatively secret places as the catacombs would probably have been dangerous: in the second, and this is I think the stronger reason, the very nearness of the suffering would make its recollection so acute and painful that it would be unlikely to be used as a subject for pictorial representation. As a matter of fact there are no representations of martyrdoms; but inasmuch as this subject, the subject of death, and death accompanied by suffering, must have loomed very large in the minds of the decorators of the Christian catacombs, it may well be that it found its expression indirectly and symbolically in the representation of scenes which were of a directly opposite character.

Some of the subjects most commonly found in the catacombs are Noah and the Ark, Jonah and the whale (or dragon) and Jonah resting under the gourd, Abraham and Isaac, Daniel in

the lions' den, the three children of Babylon in the furnace: and from the New Testament, the raising of Lazarus, the healing of the woman with the issue, the healing of the paralytic, the healing of the blind man. In all these stories there is a common element, the deliverance from great danger or from great trouble. The following sentence from the office of the dead in the Roman Breviary, which is quoted by Mr. Lowrie, suggests the intention with which such subjects were used. "*Deliver, O Lord, the soul of thy servant from the pains of Hell, deliver his soul as thou didst deliver Noah from the deluge: and Isaac from the sacrifice and from the hand of his father Abraham.*" Another passage from the Apostolic Constitutions (also quoted by Mr. Lowrie) * makes the intention still clearer. "*He who raised Lazarus on the fourth day, and also himself: who after three days brought forth Jonah living and safe from the belly of the whale, and the three children from the furnace of Babylon, and Daniel from the mouth of lions, shall not lack power to deliver us also.*" Not suffering itself, but comfort and deliverance from suffering, was the subject they chose.

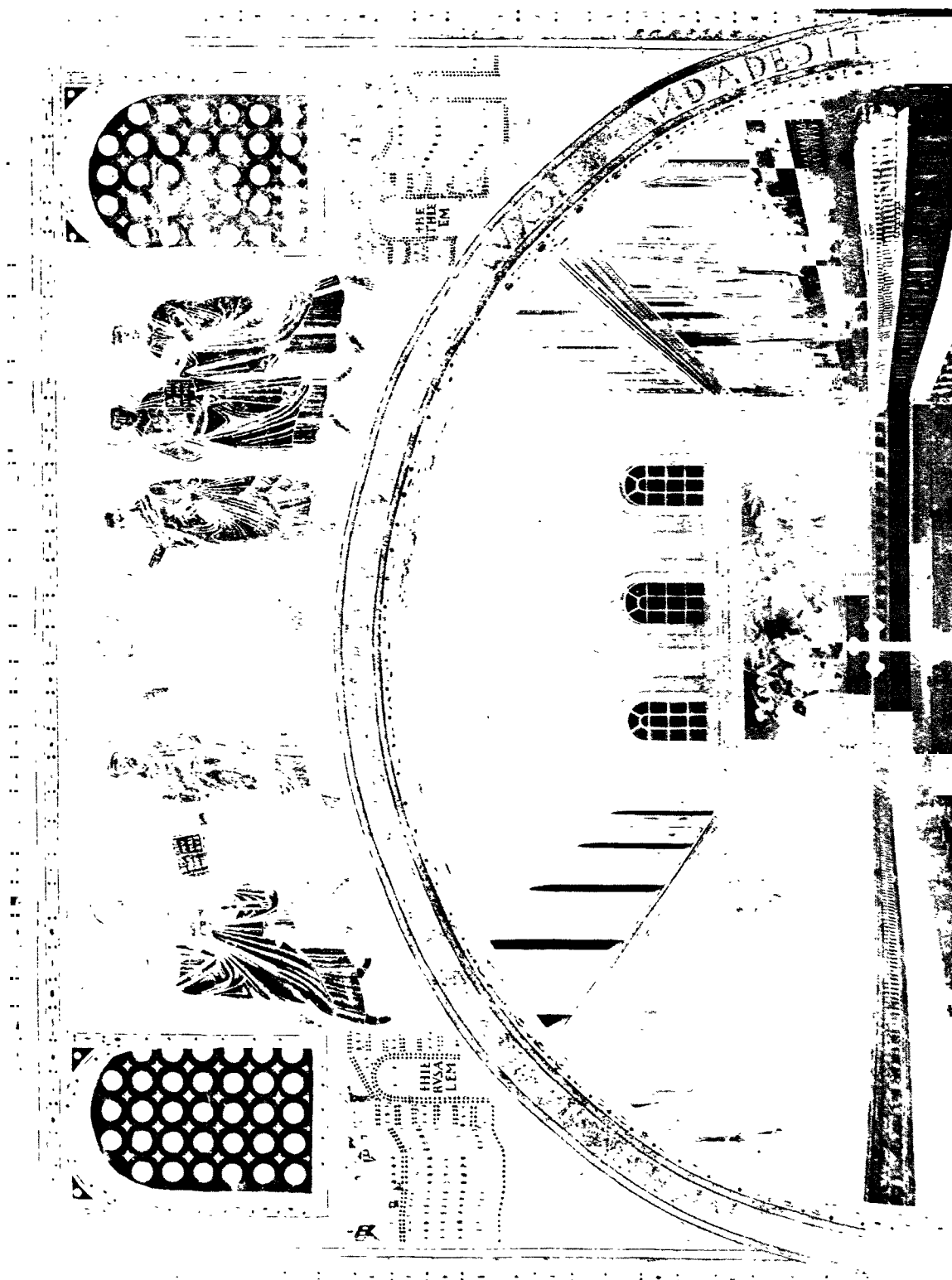
Other subjects are the Good Shepherd carrying a lamb, and the Good Shepherd surrounded by his sheep and refreshing them with the water of life; the "orans," a female figure with arms uplifted in an attitude of prayer which signified the departing soul; the celestial banquet: the introduction of a soul to heaven or to Christ Himself by a saintly advocate: the Eucharistic banquet. These subjects conveyed the idea of deliverance and resurrection, of the refreshment of the soul after death and its preparation in this world for the heavenly life. The Saviour is never directly represented in the catacombs; his personality appears under the symbol of the Good Shepherd and of the Fish. The former symbol was evidently very popular, and we shall find the motive of the sheep as representing the followers of Christ occurring again and again in the mosaics of the fourth, fifth, sixth and later centuries. The fish is used sometimes to indicate Christ Himself, as in the well-known acrostic of the initial letters of the Greek words *Ιησους Χριστος Θεου Υιος Σωτηρ*; sometimes to represent His followers, as when several fish are drawn swimming in water (this with reference to baptism). These meanings are clearly indicated in the inscriptions. The Cross as a symbol is also common, but the realistic representation of the Crucifixion very rare.

With the end of the third century came the end of proscription and persecution. Constantine was the first Christian Emperor; Christianity became in his time the religion of the Court and the Empire. Constantine reigned from the year 306 to the year 323, and the years of the peace of the Church were marked by the building of a large number of churches in Rome.

The motives of the catacombs were continued and developed, but the recollection of suffering and martyrdom became dim; the ideas of triumph and heavenly worship took their place; and we must look for the inspiration of the mosaics of the apses and triumphal arches of the churches of the fourth and following centuries no longer in the office of the dead, but in the apocalyptic vision of S. John:—

"and immediately I was in the spirit, and behold a throne was set in heaven and one sat on the throne . . . and round about the throne were four and twenty seats: and upon the seats I saw four and twenty elders sitting, clothed in white raiment, and they had on their heads crowns of gold . . . and before the throne there was a sea of glass like unto crystal, and in the midst of the throne, and round about the throne were four beasts full of eyes before and behind, and the first beast was like a lion, and the second beast like a calf, and the third beast had a face as a man, and the fourth beast was like a flying eagle. And the four beasts had each of them six wings about him, and they were full of eyes within, and they rest not day or night, saying 'Holy, Holy, Holy, Lord God Almighty, which was and is and is to come.'"

* Walter Lowrie, *Monuments of the Early Church*. New York, 1906.



MOSAIC, SAN LORENZO, ROME, SIXTH CENTURY.

The mosaic in the apse of the Basilica Pudenziana is of the fourth century; it is the earliest apsidal mosaic. In the centre, on a throne, Christ is seated; on either side are the twelve Apostles, of whom only ten are seen; behind them are two female figures, probably Saints Prassede and Pudenziana, daughters of Pudens, offering crowns; behind, again, is a portico, thought by some to represent the Church itself or house of Pudens, but it seems more likely to be a part of the architectural group above, which by its curiously exact correspondence with a map of mediæval Jerusalem recently discovered has been thought to represent the city of Jerusalem, and symbolically the heavenly city. My authority is Mr. Lowrie. Above, again, in the clouds is a gemmed cross on the top of a hill, and on either side the four beasts of the Apocalypse, the symbols of the Evangelists.

S. Lorenzo fuori le mura: this mosaic, which is of the sixth century, represents Christ in the centre seated on a globe, and on either side S. Peter, S. Lawrence, Pope Pelagius II., by whom the mosaic was added, S. Paul, S. Stephen, S. Hippolytus, and, below, the two cities of Bethlehem and Jerusalem.

SS. Cosma e Damiano, also of the sixth century. In the centre Christ stands amidst clouds; on either side SS. Peter and Paul present SS. Cosma and Damiano, the two physician martyrs; below, a procession of sheep. Marrucchi says he recognises in the figures the barbarian type of the Goths who invaded Italy in the previous (fifth) century.

S. Sabina: all that remains of the original mosaic on the western wall is the inscription or titulus giving the name and date of the founder, Peter the priest; and two female figures representing the Church of the Gentiles and the Church of the circumcision.

S. Agnese fuori le mura, seventh century. Pope Honorius I. offers the Church to S. Agnes.

Chapel of S. Venantius in the Lateran, seventh century. Christ in the clouds with two angels; below, the Blessed Virgin Mary in the attitude of an *orans* with S. Peter and S. Paul and six saints.

S. Marco, ninth century. In the centre Christ holding a book on which is written, "Ego sum lux; Ego sum Vita; Ego sum resurrectio." On the footstool the letters A and Ω, and below the Lamb on the book with seven seals:—

"And I saw on the right hand of him who sat on the throne a book . . . with seven seals, and I saw a strong angel proclaiming with a loud voice, Who is worthy to open the book and to loose the seals thereof? And no man in heaven, nor in earth, neither under the earth, was able to open the book, neither to look thereon. And I wept much because no man was found worthy to open and to read the book, neither to look thereon. And one of the elders saith unto me, Weep not: behold, the Lion of the tribe of Juda, the Root of David, hath prevailed to open the book and to loose the seven seals thereof. And I beheld, and, lo, in the midst of the throne and of the four beasts, and in the midst of the elders, stood a Lamb as it had been slain . . . and he came and took the book out of the right hand of Him that sat upon the throne." Below, again, the Divine Lamb stands on a hill from which flow the four rivers, Gihon, Pison, Tigris, Euphrates, surrounded by twelve sheep issuing from the cities of Jerusalem and Bethlehem. *"And I looked, and, lo, a Lamb stood on Mount Sion, and he showed me a pure river of the water of life clear as crystal proceeding out of the throne of God and of the Lamb."*

The procession of the sheep from the gate of the two cities recurs more often than any other piece of symbolism in mosaics of all periods. I find it a little puzzling to be quite sure as to its exact meaning. We know that from the time of the catacombs Christians had been accustomed to think of Christ and His disciples in the metaphor of the shepherd and his flock. There is no doubt that the lamb represents the Saviour, the sheep sometimes the twelve Apostles, sometimes the faithful generally, and that the two cities are Jerusalem and Bethlehem,

because in some mosaics they are so labelled. Their meaning is a little puzzling. They are generally explained as representing the cities of the Jews and Gentiles respectively, and the connection suggested between Bethlehem and the Gentiles is that the Magi came there. This does not seem very convincing. It might be, again, that the two cities of the Nativity and of the Passion suggested the doctrines of the Incarnation and the Atonement. These subjects were indeed favourite ones of the preachers of that time, but I know of no direct evidence pointing either way.

S. Prassede, ninth century. Placed there by Pope Pascal I.; Christ holding a roll, on either side SS. Paul and Peter, Prassede and Pudenziana, also Pope Pascal and a deacon;



Photo. D. Anderson. Rome

SS. COSMA E DAMIANO: MOSAIC OF THE APSE. SIXTH CENTURY.

below, the river Jordan and once more the sheep and the Divine Lamb; note also the phoenix, emblem of immortality. In the mosaic on the arch is the heavenly Jerusalem; in it stand the Saviour and the elect; angels guard the doors and introduce a crowd of saints.

Chapel of S. Zeno in S. Prassede.—A series of busts of the Saviour, the Apostles, the Blessed Virgin Mary and saints.

S. Maria in Dominica, ninth century. Here for the second time only we have a representation of the Blessed Virgin, who is not found in the earlier centuries except as part of a group. Here is the Holy Mother and Child, surrounded by angels; at her feet Pope Pascal I. Above, the Saviour seated, with two angels and the twelve Apostles on either side.

S. Clemente, twelfth century. On the arch the Saviour blessing, on His left SS. Peter and Clement, on the right SS. Paul and Lawrence. Underneath, Jeremiah and Isaiah, and the two cities, the mystic Lamb and the twelve sheep. On the apse a vine scroll on which are

birds, shepherds, the four Latin doctors, Ambrose, Jerome, Gregory and Augustine. In the centre the crucifix with doves on the cross with SS. John and Mary.

S. Maria in Trastevere, thirteenth century. Christ and the Blessed Virgin surrounded by seven saints; on the arch the Evangelists and the prophets Isaiah and Jeremiah, and below, the nativity and death of the Blessed Virgin Mary. Also the twelve sheep, &c.

S. Maria Maggiore, thirteenth century. Coronation of the Blessed Virgin, angels and saints; below, a river on which float animals and boats.

The only important change which is apparent as times goes on in the subjects of the Roman mosaics is the gradual introduction of the worship of the Blessed Virgin, which became so

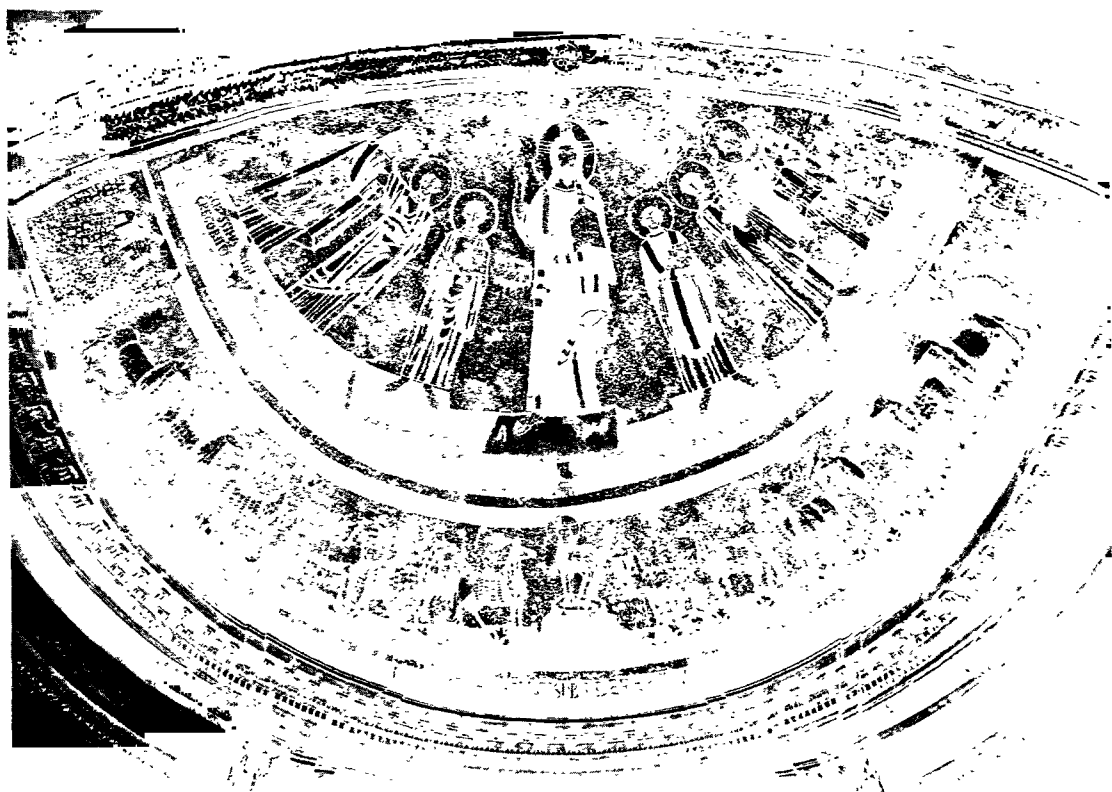


Photo D. Anderson Rome

S. MARCO: MOSAIC. NINTH CENTURY.

predominant in later Christian art. In the sculpture of all the great churches of France in the thirteenth century it has its place, and at Rheims the subject of the coronation is the centre-piece of the wonderful sculpture picture of the western façade. In Italian paintings of the fifteenth and sixteenth centuries the same subject predominates over all others, till the humanistic tendency of the Renaissance led men to forget the divine and mystic aspect of the subject, while they seem to have retained it for the sake of the opportunity they found there of painting the human aspect of maternal love.

In the sixth century, the presence of the Gothic invaders shows itself in costume and in facial characteristics, and as time goes on traces of Byzantine influence become more and more apparent; but from the fourth to the tenth century there is little change in the general character of the subjects; throughout this time will be found the same happy visions of the

communion of the Church militant on earth with the Church triumphant in heaven, of living saints standing side by side with angels and the saints who have already crossed the river; of Christ welcoming His followers in the other world, of the heavenly city, and the divine worship of the Apocalypse.

Not less remarkable than the subjects which are chosen are those which are omitted. No thirteenth century church in France is without its pictures of the torments of the damned; the

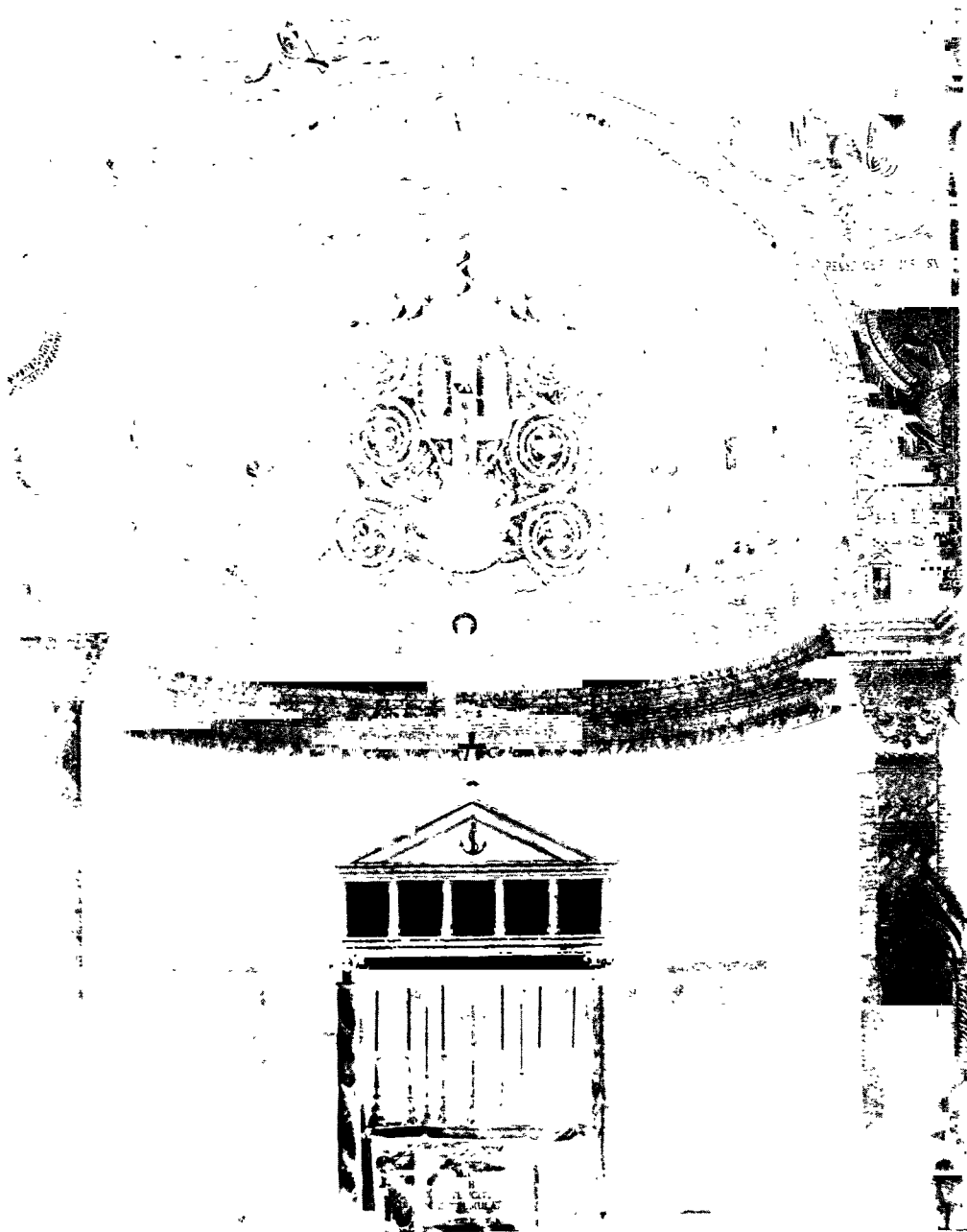


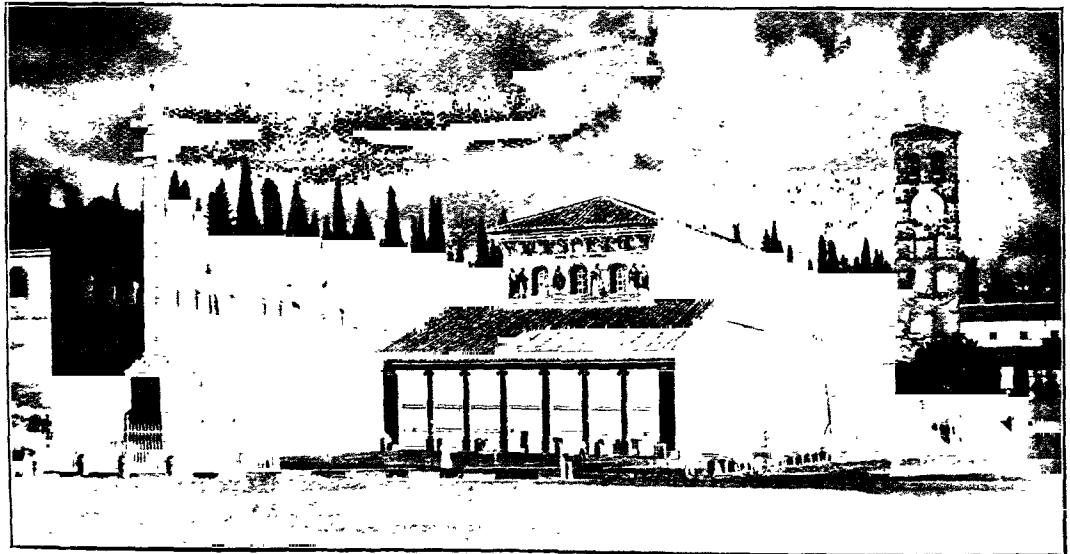
Photo D. Anderson Rome

S. CLEMENT. MOSAIC OF THE APSE. TWELFTH CENTURY.

walls of the Campo Santo at Pisa, painted in the fifteenth century, are ablaze with infernal fires. The walls and windows of the churches of our quiet English villages are not without their warnings of judgment and retribution. It would have been natural to expect to find in Rome some reflection on the walls of her cemeteries and her churches of the persecution of the first three centuries, of the terrible invasions of the Goths, the Huns, and the Vandals in the fifth century, of the Gothic and Lombardic wars in the sixth ; but it is not so : the catacombs have no pictures of the sufferings of the martyrs in this world ; the mosaics are entirely without any presentation of the sufferings of departed souls in hell. They are as serious as they can be, these mosaic pictures of the fourth to the tenth century, and full of majesty, but the terrible side even of the Apocalypse which was so much in the minds of the artificers seems to have been for the time forgotten : they painted only its serene and happy prophecies : *"And I saw a new heaven and a new earth : for the first heaven and the first earth were passed away and there was no more sea. And I, John, saw the holy city, new Jerusalem, coming down from God out of heaven, prepared as a bride adorned for her husband. And I heard a great voice out of heaven, saying, Behold, the tabernacle of God is with men, and He will dwell with them, and they shall be His people, and God Himself shall be with them, and be their God. And God shall wipe away all tears from their eyes ; and there shall be no more death, neither sorrow nor crying, neither shall there be any more pain, for the former things are passed away."*

Another remarkable feature of the Roman work of this period is the entire absence of the element of humour. Humour seems to have her home in the north, in France, Germany, and England, where her genial smile is needed to soften the grim aspect of her sisters Horror and Fear ; but the latter are also strangely absent from the work of mediæval and early Rome.

We must not expect of course to find very easily the exact connection between the history of a nation and the subject-matter of her art at one time and another : my knowledge of history, at any rate, is not equal to the task and I am conscious that I am leaving more than one of such questions in no little obscurity.



S. LORENZO FUORI LE MURA.

PAPERS COLLECTED BY THE R.I.B.A. TOWN-PLANNING COMMITTEE.

No. III.—THE FEDERAL CAPITAL.

Mr. John Sulman [F.] contributes a pamphlet on *The Federal Capital* divided into seven sections.

Section I. deals with the relative merits of the rectangular and the radial plans, the modifications demanded by site, inter-communication and aesthetic considerations: Section II. with the questions of population, water supply, electric power, railway access, &c. Sections III., IV., V., and VI. are given below almost *in extenso*, together with Section VII., which suggests an interesting alternative and summarises the author's views on the course that should be adopted.

SECTION III.

Having indicated some of the chief points to be kept in view in the choice of a site for the capital, it is now desirable to consider the actual planning of the city in a broad and general way. Its chief feature should and will undoubtedly be the Parliament House. For a time a temporary building may have to serve the practical needs of our legislators, leaving the erection of a permanent structure worthy of the Commonwealth to future generations. But whether temporary or permanent, a portion or a complete whole, its site must be selected and fixed at once and for ever, as around it the city should grow and spread in ordered symmetry. It does not necessarily follow that the Parliament House should be the central point of a more or less regular encircling mass of buildings, radiating to all the points of the compass, though such a plan possesses many advantages. It is quite conceivable that in the area chosen the best site may be at one end of the city, to which all the avenues would converge, and its plan would be more or less that of a fan. Or, again, it might be found desirable to group the larger part of the city to one side of the Parliamentary quarter, and reserve the other for official buildings and the residence of the Governor-General in an appropriate setting of gardens and parklands. Much also would depend on the contours of the city area and the character of the surrounding country, whether the principal structures should stand on an eminence in clear-cut outline against the sky, or be ranged against a background of hills. If a site could be made to order, then it might be possible to dogmatise and say what would be the best from all points of view; but as that is out of the question, it only remains to choose the

one that offers the most advantages. And to do this effectively will require the skill not only of the surveyor and engineer, but pre-eminently that of the trained architect—one who can build up a city complete, with all its buildings, roads, and parks, in imagination on any suggested site; can see the possibilities of its grouping, its contrasts and reliefs, its vistas and outlooks, and at the same time keep in view all the practical points previously enumerated.

THE SPIDER'S WEB PLAN.

On the whole, providing the configuration of the site is suitable, a plan based on radial lines offers the maximum of convenience in inter-communication, which is one of the chief desiderata in modern city life. In a paper I read at Melbourne before the Australasian Association for the Advancement of Science in 1890, I likened it to a spider's web, and suggested its adoption for Australian towns. If the reader has any doubt on the subject let him examine an actual example, and notice that from any one part of the web to any other there is always a line of shortest communication, and how from every point to the centre the threads are most direct. But advantageous as the plan evidently is, so far as I am aware no city has yet been consciously designed on this system, possibly because there have been so few opportunities of planning a city *ab initio*, except in America, where the prosaic chessboard plan has held almost undisputed sway. Most cities have grown in an unordered, unorganised manner, till their defects have become unendurable, and then remedial measures have been undertaken at enormous cost. With the knowledge we now possess, it would be a crime to perpetuate the blunders of the past. One attempt has certainly been made at ordered city planning in Australia, which deserves mention. I refer to Adelaide, where the kernel of the city is about a mile each way, and possesses a fine central and four subordinate squares. It is separated from its suburbs by a spacious belt of parklands, which are an asset of great public value for health and enjoyment. But the lack of Adelaide is diagonal communication, the present subdivision being of the regular chessboard pattern, with all its disadvantages. Melbourne also has the great merit of fine principal streets and main avenues of ample width, some of which radiate from the central nucleus, but the predominant lines are north and south, east and west, and hence the city lacks the easy intercommunication between all parts which is possible and desirable.

* Nos. I. and II. of these Papers comprise (I.) a summary of C. H. Robinson's *Modern Civic Art* (H. V. Lancaster, JOURNAL, 5th December 1908, p. 107); (II.) The Report of the Cities Committee of the Sociological Society [ib., 22nd May 1909].

and bordered with turf. Beyond the circular avenue the main straight avenues should radiate to the outskirts, and these again should be a repeat of the one encircling the Parliament House reserve, for they will carry the principal traffic of the city. Facing the circular avenue and Parliament House, and between the radiating avenues, a number of very fine sites with frontages all round would be available for the public office buildings of the Commonwealth, such as the Treasury, the Attorney-General's Department, the Customs, the Home Office, the Department of External Affairs, the War Office, and possibly, in the far future, an Admiralty. In the sketch plan illustrated one more space is shown, and this might be reserved for a Commonwealth Library and Records Building, such as the famed Library of Congress in Washington. Of course, in actual laying out, a greater or less number than eight main avenues might have to be provided, and the suggested arrangement modified accordingly, but on the general principle of surrounding the Parliament House with its executive departments there can, I think, be no difference of opinion, as it would conduce to the easiest inter-communication and despatch of business. It will be noticed that I have not yet referred to a printing office, which will be essential, but from the character of the work carried on therein it might be better to place it in a less prominent position, and possibly in close touch with the railway line.

THE RAILWAY STATION.

This brings me to the question of the placing of the railway station, in modern times the actual portal of the city. In that respect it is only second in importance to the Parliament House itself, and its location and treatment can largely make or mar the city both from a practical and artistic standpoint. It may be urged that the nearer it can be brought to the centre the better, but to this there are several objections. For a long time to come it appears probable that steam traction will be employed for long-distance haulage of heavy trains. This renders a surface line desirable; and a surface line, whether on the level or above or below it, means noise, severance, and ugliness. On the whole, if the railway tracks can be placed in a cutting where they enter the city the objections would be minimised; but to carry them right to the centre would not be advisable. Again, the station buildings and station yard would take up a large area, which could hardly be spared from the important central sites without grave damage to the general effect. But I quite recognise that the speediest and easiest connection between the Parliament House and especially the departing trains is of prime importance. I therefore suggest that if the rails at the railway station are well below the level of the street, a cut-and-cover tunnel could be continued thence direct to the Parliament House, and the members' cars be kept in waiting till within five minutes or so of the

departure of the trains, and then run down by an electric motor, and hitched on.

Another question to be decided before suggesting a site for the railway station is whether it should be a "way" or a "terminal" one. The former would mean a considerable length of line flanking the city, whereas the latter would reduce this to a minimum. I therefore favour a terminal station, and as the Federal capital in the not far distant future must be by far the largest city in that part of the State, and the objective of everyone travelling along the new line built to reach it, the choice is, I think, fully justified. From it all parts of the city, as well as the centre, should be easily accessible, but before suggesting an actual position it will be advisable to consider in some detail the further planning of the roads and streets with that object in view.

SECTION IV.

We have seen that an area of about two miles by one mile and a half will be required to accommodate a city population of 50,000, and the question now arises at what distance from the centre the railway station can best be placed. Where it has been located right on the outskirts the city has inevitably expanded in that direction, and in course of time spread far beyond, except in such cases as Adelaide, where the parklands form an insuperable barrier, or of Melbourne, where the Yarra is the boundary. In the ordinary way I would suggest that about half the distance from the centre to the circumference would be a suitable position, and for a city two miles by one mile and a half, or its equivalent, about half a mile from the centre would suffice. But as 50,000 is by no means the anticipated limit of population, it would be well to take a little more, say five-eighths or three-quarters of a mile, as the best position.

ACCESS TO AND FROM RAILWAY.

From the front of the station it should be possible to reach every quarter of the city in as direct and simple a manner as possible, and this purpose can best be served by a wide avenue encircling the centre of the city, much as the Ringstrasse encircles the heart of Vienna. If this be placed at about half a mile radius it would have the more-closely-built-on section within, and the more open portion and the railway station beyond it. On reference to the sketch plan it will be seen that if the railway station be built where indicated a number of advantages are obtained:—

1. The ring avenue gives access to every part of the centre of the city by the avenues radiating from the centre.
2. By the diagonal avenues beyond the ring all the outskirts are approached in as direct a fashion as possible.
3. There is a large open space in front of the railway station, where the biggest crowds can gather without crushing or inconvenience to witness the arrival or departure of celebrities, deputations, or

troops, and where processions may be marshalled with ease.

4. From this open space, through a vista of parklands, the central group of the city's buildings will be visible in the distance.

5. The railway line itself will approach the city through other parklands, and the industrial quarter, without interference with the main avenues of access, or being brought into too close contact with residential buildings.

6. The industrial quarter could be formed with sidings into the yards and buildings thereof, and thus permit of the easiest handling of goods and building materials.

I have not hitherto referred to the latter in connection with the various sites, as the whole district is very much on a par in respect thereof. Free-stone and timber will undoubtedly be brought in by rail from a considerable distance, and although bricks can be made almost anywhere in the neighbourhood, it might be as well not to burn them in immediate proximity to the city.

THE RING AVENUE AND PARKWAYS.

On reference to the plan it will be noticed that on the inner side of the ring avenue parkways lead almost up to the centre of the city. For pleasure and beauty they will be an undeniable acquisition, but in addition they are most important from a hygienic point of view. The closely-packed miles of streets of the older cities of the world are no longer regarded as inevitable, and every effort is being made in such places to increase the open areas and to beautify and purify them by planting. In a new city such as we are contemplating, where there is no lack of land obtainable at agricultural or grazing values, it would therefore be a sin to permit of the old conditions being repeated, and even in the most congested part of the city some open space of turf and trees and flowers should be easily accessible. This the parkways I have indicated provide, and at the same time open up fine vistas to the central series of buildings. On the outer side of the ring avenue are a number of triangles, which I suggest should be reserved for public and semi-public buildings, grouped together in association. For instance, one triangle might be reserved for a university, if it is desired to establish one; another for a hospital; on others, again, schools and their playgrounds would find a place; while an art gallery or museum, a theatre or a town-hall, churches and meeting-rooms, hotels and clubs would find ample room and space on the remainder. But in no case should the buildings be crowded, and they should all be surrounded by grass and trees and shrubs, with seats everywhere, to make the inhabitants feel the open spaces are for public use. If such a scheme as this be carried out, the actual width of the ring avenue need not be excessive. It would suffice to provide for any traffic that can be anticipated, whether by tram, vehicle, or motor car, on horse or

on foot, with rows of trees and grass between; for the parkways on the one hand, and the open sites for public buildings on the other, would give the quiet resting-places that a busy avenue would not provide however wide it might be made. The inner and the outer quarters of the city would thus be in close touch where the main radial avenues intersect the ring, and prevent that utter separation which is so manifest in Adelaide.

DIAGONAL AVENUES.

Beyond the ring avenue wider spaces prevail, and here diagonal lines of communication become necessary if the shortest routes from point to point are to be secured. A complex-looking but really very simple solution is afforded by merely continuing the main radial avenues, and the different sections of the ring avenue, and allowing them to intersect. Where they finally meet an outer boulevard should be formed, similar to the ring avenue, and serving a like purpose, but on a less extensive scale, because the traffic would be comparatively small. Beyond this, again, the main lines of street and avenue could be continued as far as might be required; but for many years, and perhaps generations to come, it is hardly likely the city would extend so far, and parks and farm lands, play and sports grounds, could there find a congenial and suitable home. In selecting a capital city site for the most horse country in the world it is hardly necessary to say that a suitable flat for a racecourse will not be forgotten, and a still larger area should be reserved for a parade and drill ground. In both cases, if they can be found alongside a gently sloping range, so much the better for the view of what is going on. Beyond the city boundaries the roads will connect with those leading to adjoining towns.

SECONDARY STREETS.

The main avenues having been indicated, it is now necessary to consider how the intervening spaces may be subdivided. Some theorists have advocated a hexagonal arrangement of the minor streets, which would really result in the abolition of the double-fronted thoroughfare and the substitution of alternate blocks of buildings and gardens. This might be right enough for the residential portions, but for the business quarters would not find favour with traders. They want to be as close together as possible, to make a busy centre. Moreover, a regular rectangular subdivision of allotments is a great convenience in selling, leasing, and building. Hence, as the main avenues provide the shortest route from point to point, logical completeness may well give way to practical convenience, and the rectangular subdivision of the smaller areas be permitted. But there should be plenty of cross-streets to prevent waste of time in getting from one to the other, and in all cases there should be back lanes for access to the rear of the allotments, where

it is at all likely the frontages will be closely built on either now or in the future.

THE POINTS OF THE COMPASS.

In setting out the plan of the city, one very important point intimately connected with its healthfulness and the comfort of the inhabitants is the alignment of the streets in relation to the meridian. No street should run directly east and west if it can possibly be avoided, for should it do so the front of the buildings on the northern side, if erected close together, would get no sunshine for six months in the year, and only the weak beams of the rising and setting luminary for all the rest of the time. Too much sunshine, as we know to our cost, is rather trying, but none at all would be still worse. The Italians have a proverb that "where the sun does not shine the doctor enters," and we shall therefore do well to so set out our main lines that this evil is avoided in the majority of if not in all the streets of the city. Mr. G. H. Knibbs went very carefully and scientifically into this point in his paper on "The Theory of City Design," read before the Royal Society of New South Wales in 1901—and I may refer my readers thereto if they desire further information on the subject. On reference to the sketch plan it will be seen that only one street runs east and west, and even this could be avoided if the general lay-out were based on a hexagon or decagon, instead of on an octagon, as drawn.

SECTION V.

THE WIDTH OF STREETS.

If the opinion of the average man were asked as to the width of the streets of the Federal capital, he would undoubtedly reply: "Make them as wide as possible." But it is not quite so simple as all that, even though the land may be purchased at agricultural values, or, if it be Crown land, may be had for the taking. The question of road-making and the cost of repairs is most important, and the balance must be carefully held to ascertain where utility ends and waste begins. Then, again, if abundance of playground space and parklands be provided, wide streets are not required as lungs for the city, and they may be reduced to the actual width required by the prospective traffic. An idea has also grown up, owing to legislation, that no street, however small the traffic it will carry, shall be less than 66 feet in width. In planning a new city we may well throw all our preconceived ideas overboard, and consider the subject on its merits.

THE RADIAL AVENUES.

Let us first take the main avenues radiating from the centre, which, presumably, will carry most of the traffic. For these, footpaths of 20 feet in width will not be too much. Then allowance should be made for stationary vehicles against the kerb of 8 feet 6 inches at least. A further space of 17 feet for a line of moving traffic each way is required, and

if slow and quick traffic are not separated another 8 feet 6 inches should be allowed for passing. The question now arises whether, in view of the great development of motor traffic, it would not be desirable to provide a special track for such vehicles; if so, a further 17 feet must be arranged for. And, finally, two lines of trams with clearance equal to about 20 feet are essential. But these dimensions only give the minimum actually required for the convenient handling of the traffic, and leave nothing for adornment by trees and planting. In busy avenues such as I am dealing with it may be urged that trees would be in the way, and no one would be inclined to loiter. But trees give shade to the pedestrian, help to break the force of the wind, and always assist in the purification of the air. That they will also add to the beauty of the city goes without saying. Hence I would suggest that at least two rows should be planted in the busiest portion of the radial avenues until they reach the encircling middle ring avenue, and four rows beyond that dividing line, where the traffic will not be so great. The trams will naturally be placed in the middle of the street for many reasons, and more especially to give the largest radius in turning corners. If they are operated by overhead wires the poles are an artistic difficulty, and the best thing is to hide them as far as possible. Hence a row of trees each side of the tram lines would be a good thing. But trees must have room to grow, and an allowance of 10 feet in width for each row would not be too much, and this space would also serve as a footpath for passengers awaiting the trams, or desirous of avoiding the busy stream of traffic in front of the buildings. In these calculations I am, of course, bearing in mind the ultimate development of the city, and providing for the maximum traffic of the future. Beyond the ring avenue the two additional rows of trees could either be placed on the edge of the footpath or in the road just beyond, as the traffic would be much less. If the sketch section of the avenue be now referred to it will be seen that the dimensions allowed for the different classes of traffic total up to 165 feet, or exactly two chains and a half. As these radial avenues will for a certainty be utilised for business purposes it is not desirable to increase their width beyond what is actually required for the maximum traffic anticipated, as too great a width is detrimental rather than otherwise from a business point of view. Frequent crossing-places for vehicles over the trams and adjoining footpaths would, of course, have to be provided for vehicles to get from one side of the avenue to the other. Each side would be mainly devoted to traffic in one direction only, but one line of traffic in the opposite direction is provided for to permit of vehicles crossing from the other side reaching any specific point.

THE RING AVENUES.

The foregoing argument does not, however, apply to ring avenues, which may be made wider without

causing any special inconvenience. The volume of traffic in the inner ring avenue surrounding the Parliament House is not likely to be any greater than in the radial avenues, and hence the same width would suffice for all practical needs, but the question arises whether for stateliness or beauty it should not be increased to permit of the introduction of plantations or garden beds. As, however, I propose that the Parliament House and all the Government buildings surrounding it should be set each in their own ample reserve of garden ground, I do not think it is at all necessary to take more space for the road, for the space between structure and structure will be so ample that it will have the effect of one large park or garden, with fine buildings set therein.

The middle ring avenue stands upon a somewhat different footing, for it may, and probably will, have a greater traffic than any other street in the city, as all the diagonal roads from the outer quarters touch it at one point or another, and seven-eighths of the outward traffic from the centre of the city must pass along it. The inner portion of the city area being about a mile in diameter, a good open space all round would also be advantageous from a hygienic point of view, but anything approaching the width of the parklands at Adelaide is quite uncalled for. Moreover, it must not be forgotten that the parkways penetrating the central area and the triangular sites for public buildings on its outer margin practically form part of the air space, so that only a moderate increase in width is desirable. It would, I am inclined to think, become the favourite promenade and drive of the city, hence I would suggest the addition of an extra track of 8 feet 6 inches in width, on each side of the central avenue, for vehicles, and also the provision of a separate soft-earth track for riding, like Rotten Row in London, and a special motor road, each 20 feet in width. As the outer footpaths do not face continuous buildings, a width of 15 feet would be ample, but between them and the road I suggest a width of 15 feet for trees and turf, which would be harmonious with the central avenues. The total width thus amounts to 264 feet, or exactly four chains; and I am satisfied that, if carried out as suggested, this avenue, without being too wide, would be of noble appearance and one of the chief features of the city.

THE OUTER RING AND DIAGONAL AVENUES.

At a distance of about three-quarters of a mile from the middle ring avenue, or a mile and a quarter from the centre of the city, an outer avenue connecting the radial and diagonal avenues would be required. As the outskirts are approached, the buildings, quite apart from any regulations that may be enacted, will naturally be spaced in a more open manner, and more ground given to each. Hence the traffic will be much less. If the city grows in the future to a population of 200,000, it

will, however, probably spread over an area of not less than four miles in diameter, or three-quarters of a mile beyond the outer ring avenue. Hence it would be wise to provide for a future single line of tramway at least, with its attendant rows of trees and footpaths. On each side I have allowed space for four rows of vehicles, including motors, which would, I think, be ample, and beyond that again a border 7 feet wide for trees and grass, and a footpath of 10 feet. These dimensions added together make up a total of 132 feet, or exactly two chains.

The diagonal avenues are intended to connect outskirt with outskirt in as direct a line as possible, and hence will only carry local traffic, except where they form part of the middle ring avenue. With trams in the radial and ring avenues, it does not appear likely that they would be required in the diagonal avenues as well: but looking to the possibility of a large population in the future, and remembering how costly it is to widen a thoroughfare when once its frontages are occupied, I think it would be advisable to make the diagonal avenues the same width as the outer ring avenue, and thus provide for every need that the future may have in store, both of tram communication and of general traffic.

THE INTERSECTIONS OF AVENUES.

Wherever the avenues intersect it will be very necessary that an enlarged space should be provided, to prevent the congestion of the traffic which is so marked a feature in city streets where this urgent need has not been attended to. In many cases the circle or octagon is the best form for this enlargement to take, but it does not necessarily follow that it need be universal. Then, again, a long avenue, stretching for miles in one unbroken straight line, though excellent for traffic, is not satisfying to the eye. In fact it is wearisome. Hence, if these long straight stretches are broken up by wider spaces every half-mile or so, with a garden, a monument, a fountain, or some other feature, the gain in the artistic value of the streets will be immense. From a business and traffic point of view these intersections will each become the focus of a district with radial communications to the centre and to every other part of the city, thus carrying out the cardinal principle of the spider's web on which I started my scheme.

SECTION VI.

THE STREETS AND LANES.

The subdivision of the central area of the city within the middle ring avenue can, I think, best and most usefully be carried out on the rectangular system, as in no case will any street be of great length without cross communication. In course of time the whole of this area will be more or less thickly built over, and most of the business of the city will be conducted therein. Hence the traffic in the streets will be considerable, but in no

imaginable circumstances is it likely that they will be required to carry a tram-line, and therefore a width of one chain would be ample for all practical requirements, unless tree-planting is made universal. But with all the avenues planted, and the parkways and parks, to which I have yet to refer, easily accessible, I am inclined to think it would hardly be necessary. If, however, it is considered otherwise, then an extra 14 feet in width would be desirable for two rows of trees. Streets which might be so treated with advantage are the ring beyond the administrative buildings surrounding the inner avenue, the ring connecting the inner ends of the parkways, and the continuation of the line of the parkways up to the various administrative buildings.

As it is probable that in this quarter of the city the buildings on the frontages will in time be continuous, it will be advisable to provide back access by means of lanes, for which the present statutory width of 20 feet would be ample. They are necessary evils, and if well paved and kept clean must be put up with, though they can hardly be made beautiful.

STREETS AND LANES IN THE OUTER QUARTERS.

When, however, we get beyond the middle ring avenue, where such close grouping of buildings cannot conceivably ever become necessary, then I think lanes might be dispensed with by stipulating that no building shall occupy its whole frontage, and that a passage-way at its side of a specified minimum width shall be left for access to the rear.

The lay-out of the streets in these quarters need not be so regular as in the more valuable central area, and rein may be given to the fancy in forming crescents and squares, and possibly sinuous lines that would be a relief to the straightness of the main lines of communication. The principal streets should not be less than 80 feet in width, so as to permit of two rows of trees. Those next in importance might be 66 feet in width, while minor streets might even be 40 feet or 33 feet in width, with great advantage to the city exchequer and no detriment to the inhabitants, providing a building-line were fixed in each case compelling the setting-back of dwellings to at least 66 feet apart from those on the opposite side. Thus in a 33-feet street the minimum width of the front garden would be 16 feet 6 inches, and if in the course of time wider streets were needed, it would only mean the resumption of front gardens, and not of buildings. In a purely residential quarter, where the traffic almost wholly consists of tradesmen's carts and the infrequent cab or buggy, a width of 33 feet would be ample for all requirements, and the saving in making and upkeep would more than pay for the maintenance of the extra width I have suggested for the main avenues. In fact, my aim has been to give the width where it is wanted, and save outlay where it can be done without disadvantage. This is only common-sense and good engi-

neering, but we have grown so accustomed to a statutory width of one chain as being essential that it requires an effort for the average man to get rid of the idea that what the law says shall be done is, therefore, unalterably right. It is to be hoped that in the Federal City a new law may be made and enforced, based on more common-sense data.

PARKWAYS.

A "parkway" is an American term for something between a tree-bordered avenue and a park. It is confined between parallel lines, like the former, but is not necessarily planted with avenues of trees, and is usually bounded by narrow roads for the actual traffic to the buildings on either side. In the lay-out of its paths and planting it approximates more to the park, and serves a most useful purpose in the heart of a city, where space for a park cannot be spared. Here young children can play in safety, old folk may sit and enjoy the air out of the roar of traffic, and the young and middle-aged can meet their friends and acquaintances on common ground. Suitable positions for parkways in the ideal plan I have sketched would be converging from the middle ring avenue towards the city centre. Others of greater size might extend from the crossing points of the diagonal avenues towards the outer ring avenue, or into the outer quarters of the city, and would form an alternative communication from the centre to the large parks, and sports and recreation grounds, which must necessarily be placed on the outskirts.

PLAYGROUNDS.

The parkways serve in a measure as playgrounds for very young children in charge of their elders, but in any well planned and organised modern city numerous playgrounds for growing boys and girls should be an essential feature. They need not be elaborately "laid out"; if a good stretch of green sward can be secured, and a few trees planted round the margin for shade and shelter, with enough seats for those who like to watch the youngsters at play, the necessary requirements would be met.

PARKS.

By a "park" I do not mean a sort of magnified garden, with flower beds and many paths, such as we often see in towns, but a liberal space of ground well grassed in the open and abundantly supplied with trees, where one can roam at will, families can picnic, and cattle and sheep can graze. The more diversified the space the more pleasing will be the effect; and if a creek should happen to run through the area which can be dammed back to form a lake, so much the better. The worst sites from a building point of view are fortunately the best for a park—a hill too steep for dwellings will make a fine point of outlook, and winding roads or paths will give easy access to the summit. A creek amongst buildings usually becomes an abomina-

tion, but in a park is a valuable asset. Swampy and low land hygienically unfit for occupation can by drainage be turned into a smiling sward that will keep green when the rising ground is burnt a dusty brown. Sports grounds for the adult members of the community may well form part of the parks, and the necessary shelters need not be obtrusive. But a show-ground or a racecourse, which both require a considerable quantity of buildings and stabling, had better be kept separate from the parks. Almost of necessity the parks must be in the outskirts: but if anything approaching the model plan I have sketched is attainable, they will be so easily reached from any quarter that the distance will in no case be excessive.

SECTION VII.

AN ALTERNATIVE PLAN.

In a previous article I have referred to the fact that the contours and surroundings of the city would exercise an all-important influence on its plan. In the city I have described in detail I have assumed a fairly level surface, with possibly a slight rise towards the centre, so that the chief building would stand out against the sky. Let us now assume another type, viz. a fairly even slope in one direction, preferably to the north-east, backed up by a range of hills to the south-west. It would have the practical advantage of shelter from the cold winds of winter, and from the rays of the setting sun in summer. In this case the Parliament House and the chief buildings must be planned to look well against a background of hills. A circle such as I showed in the radial plan would not suit: but with the main building slightly set back in the centre, and the public offices stretching in ordered array on each side, the conditions would be met in very effective fashion. The buildings should face a broad and dignified avenue, and should be backed up by parks and gardens. It would be ruinous to their appearance to let the town spread behind them. From the centre of this avenue another should run at right angles direct to the railway station, which would thus form a secondary feature of the greatest artistic importance, and would be placed in the best possible position to serve the city as a whole. The business and residential area could then be subdivided much on the same lines as the previous plan, except that the area would be a half instead of a full circle. The Governor-General's residence would naturally be placed on the lower slopes of the hills behind the city, and could thus be in closer touch with the official buildings than in the other plan. From a purely utilitarian point of view, the former probably offers the most advantages; but if a suitable site is chosen, the latter has, I think, greater merit if artistic value is taken into account as well as practical conditions of traffic and inter-communication. But in no case do I expect that these plans could be literally followed, and they are only intended to

show the principle of laying-out that should be aimed at.

VISTAS AND POINTS OF VIEW.

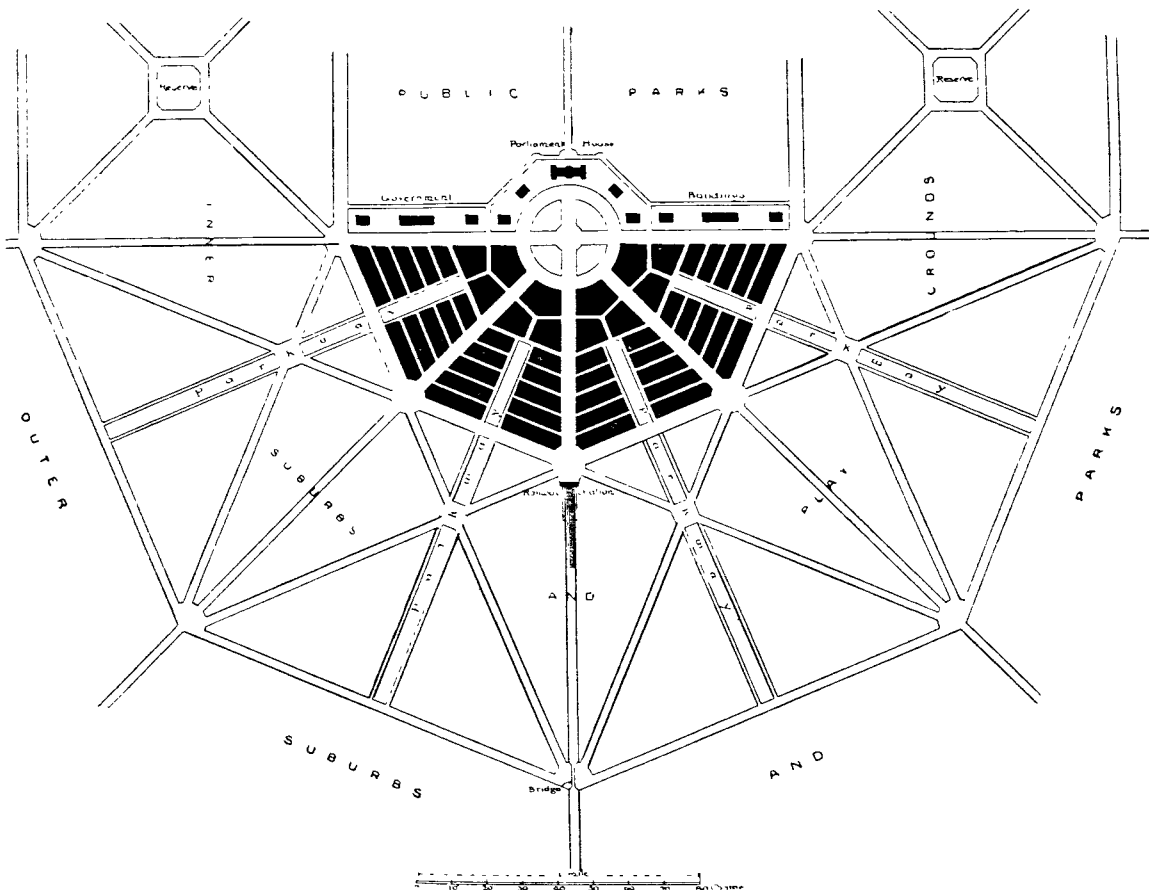
For instance, if the site chosen is so situated that fine views of the distant mountains are obtainable, it would be of primary importance that the chief avenues should be planned to take advantage thereof, for nothing can be better than the contrast between the foreground of buildings and, say, a picturesque mountain range at the end of the vista. One of the chief merits of the splendid plan for the remodelling of San Francisco by the celebrated American architect, Mr. D. H. Burnham, was the way in which he utilised every bit of scenery and brought it into the general scheme. The regularity of the plan may, and probably will, have to be departed from in places if a hill too steep for building upon should intervene. It should, of course, be turned into a park, with every aid that art can give to secure the finest points of view over the city and surrounding country. But notwithstanding any interference of this kind or by creeks and swampy ground with the ideal scheme I have suggested, I am satisfied that the general ideas of the shortest routes of inter-communication may be adhered to, and that a city thus planned would possess so many advantages over the normal type to which we have been accustomed that it would become the model for the future.

WHAT TO DO AND HOW TO DO IT.

In a few days from the time of writing, our legislators, or a number of them, will meet on the area chosen last session as the Federal territory, to familiarise themselves with its features and to enable them to weigh with knowledge the reports they will receive from their officials. Whether they will actually decide by vote on the apparent merits of particular sites within the area I do not know; but I think I have made it clear by what I have written that planning a city in a worthy manner is no easy task, and requires far more consideration than a few contour surveys would afford. These are, of course, an absolutely necessary preliminary, but we must look much further ahead. To choose the best site out of several, many considerations must be taken into account, such as soil and subsoil, shelter and sunshine, convenient access by road and rail, water supply and storage, facilities for drainage, outlooks both near and distant, the value of the surrounding country for grazing and cultivation, and also as a source of pleasure, and last, and most important of all, the kind of city that can be built on any particular area. Much information has already been obtained on many of these points, and is available, but on the last little or nothing. It is work for an architectural expert, and one of the highest type, and I sincerely trust no decision will be come to before the best available assistance is obtained. And when I say an expert, I mean an expert, and not a commission which will be largely dependent on the opinions of other men

may volunteer. The planning of a capital city is a far more difficult matter than the planning of a building, however large and complicated—and who ever heard of a commission planning a building? They may perhaps usefully criticise it after it is planned, but the actual imaginative work of forecasting the form the city may best take on different sites can only be performed by a trained expert

and parks and playgrounds of the city that is to be. But much more might be written on the actual buildings that will form the city, their disposition and grouping, their height in relation to the roadways, their contiguity or distance apart, their material, and, last but not least, their design. In this connection some effort should be made to provide a satisfactory substitute for the hideous street veran-



A FAN-SHAPED PLAN.

This plan embodies the same general ideas as the one previously illustrated, but the Parliament House, instead of forming the central feature, is here the culminating point on one side, and would look best if backed up by a range of hills. The railway station forms an important secondary feature.

with all the imaginative capacity of the architect and artist, in addition to the sound knowledge and common-sense of the engineer. To obtain such an expert we must, I fear, look beyond the boundaries of the Commonwealth to those countries which have had experience in city-planning.

CONCLUSION.

In the foregoing articles I have only dealt broadly with the problem of planning the avenues and streets

and parks and playgrounds of the city that is to be. But much more might be written on the actual buildings that will form the city, their disposition and grouping, their height in relation to the roadways, their contiguity or distance apart, their material, and, last but not least, their design. In this connection some effort should be made to provide a satisfactory substitute for the hideous street veran-

REVIEWS.

JACQUES ANDROUET DU CERCEAU.

French Châteaux and Gardens in the Sixteenth Century. A Series of Reproductions of contemporary Drawings, hitherto unpublished, by Jacques Androuet du Cerceau. Selected and described, with an Account of the Artist and his Works, by W. H. Ward, M.A., A.R.I.B.A. Small folio, 15½ x 11½. Lond. 1909. Price 25s. net. [B. T. Batsford, 94 High Holborn, W.C.]

That so excellent a book and so notable a discovery as is therein given to us should not have been already reviewed in the JOURNAL is, I fear, a cause for just reproach to the present writer, who was asked, long enough since, to contribute this article. My excuse is that so serious and scholarly an addition to our Library deserved more than a perfunctory notice, and that I have only now been able to spare the time necessary for its considerate perusal, and for a personal inspection of the original drawings in the British Museum from which the illustrations are reproduced.

The rapidly growing inclination of our students to the examination of French work and methods makes the publication of this book both opportune and welcome. No better introduction could be found to the study of the French Renaissance than Du Cerceau's *Les Plus Excellents Bastiments de France*, but it is not every student who can afford to possess it, and Destailleur's reprint of 1868-70 is not altogether satisfactory. Here, within the reach of a moderately furnished purse, is a set of really good reproductions of some forty of Du Cerceau's drawings, with descriptions, sketch-plans, and other illustrations which make the work a treasure-house of information. The customary compliment by the critic to the publisher becomes in this case a very sincere congratulation; in no other country, I think, does a publisher hold the pre-eminence with regard to architectural works of Mr. Batsford in England, and so long as he continues to produce such books as that before me his position is unassailable. The only fault I have to find is that of over-condensation: the letterpress is, in truth, a very pemmican of facts, and mental digestion would be aided by a humaner and less concentrated method of presentation. Such a page as No. 17, to take one instance, demands so strained and close an attention in perusal as to hinder appreciation of the admirable historical survey of Fontainebleau which it contains. Nevertheless such a fault is, in its way, a virtue; a work of reference had better err on the side of compactness than of diffuseness; and the seven pages within which Mr. Ward chronicles the life and work of Du Cerceau form a little masterpiece of close and scholarly writing.

The book consists of two parts, the first dealing with the personality and works of Du Cerceau and his family, in which the husk of vague tradition is

neatly stripped from the kernel of known facts, and the second containing concise descriptive and historical notices of the buildings illustrated. As regards Jacques Androuet himself, Mr. Ward judiciously says that he was "born probably . . . of a family settled in Orleans"; and this is the view of most of his biographers, though La Croix du Maine says positively in his *Journal de Henri III.* that he was born in Paris. Whether or no he was to any great extent an "architect" in the present-day sense of the term is a vexed point. Mr. Ward gives very fairly the reasons for concluding that the châteaux of Vernueil-sur-Oise and Charleval, at any rate, were his work, as well as the restorations and additions carried out by René de France at Montargis. But he was a very great draughtsman and designer, and exercised a tremendous influence on the shaping of the French Renaissance. He studied at Rome, where he was sent by the generosity of Cardinal d'Armagnac, at a time when, as Mr. Ward remarks, the remains of antiquity were far more numerous and complete than now, and sketching and measuring with enthusiasm, weaving his own personality into compositions based upon the antique, may be considered as the prototype of the "Prix de Rome" Student. A Protestant himself, his two sons Baptiste and Jacques, men of great ability and high principle, followed both his profession and his faith. We learn from L'Estoile that in 1585, during the time of the religious persecutions, the younger Androuet du Cerceau, that "excellent architecte du roi," chose rather to forfeit his master's friendship than to attend Mass; and, having left the house he had recently built at Préaux-Cleres, bade farewell to the King, with the prayer that he would "ne trouver mauvais qu'il fust aussi fidèle à Dieu qu'il avoit été et le seroit toujours à sa Majesté." Tradition says that his father, then some seventy-five years of age, accompanied him and died in exile; at any rate he disappears from history at about that date, and neither the place nor year of his death is known. In his dedication of the second volume of *Les Plus Excellents Bastiments* to Catherine de Médicis in 1579 he complains that his great age no longer permits him to "faire telle diligence qu'il eut fait autrefois," and his last work, the *Livre des Edifices antiques Romains*, is dated 1584. The amount of work he produced was prodigious, and a careful list is given by Mr. Ward of the known books and engravings; 2,813 figures on 1,930 sheets is Geymuller's estimate of the number of his engravings, and they are mostly by his own hand. I do not see any mention of the very rare Plan of Paris which he made about 1560; only two copies, I believe, are known to exist—one in a private collection and a second, retouched and modernised at different times, preserved in the Bibliothèque de l'Arsenal. The latter copy is supposed to have formed part of the library of the Abbaye de St.

Victor, and was engraved in 1755 by Guillaume Dheuland.

I have spoken above of the notable discovery which Mr. Ward's book contains, and it may be said that the whole series of drawings in the British Museum is a discovery so far as architectural students are concerned: but the real *clou* of the book is to be found in Plates XVIII. and XIX., which show Philibert de l'Orme's complete design for the Tuileries, of which a small portion only was executed for Catherine de Médicis after the death of Henri II. De l'Orme's original scheme for this palace was known—by the plan given in *Les Plus Excellents Bastiments* and the small portion actually built (the lower story of the central pavilion of the west front and the adjoining galleries on the north and south)—to have been on a scale of such magnificence as would have eclipsed the Louvre. But until the discovery of Du Cerceau's drawings by Mr. Ward the general treatment of the design had been a matter of speculation for generations. No one knew how the centre pavilion was to have been completed, and the younger Du Cerceau's elliptical dome and cupolas were supposed to have carried out De l'Orme's intention. The two ellipses in the north and south courts shown on the plan referred to had given rise to even more surmise; and all doubt on the subject is now ended by these perspective views, which show them to have been domed halls, probably for the Court masques and ballets.

Some curious points remain to be solved in connection with these drawings: for instance, how did Du Cerceau come by his knowledge of De l'Orme's *unexecuted* designs for the Tuileries? He only gives the *executed* work to the Château Neuf at St. Germain-en-Laye in his drawing (Plate VIII., B.M. III-31), marking it "Desseing en partie du théâtre commencé." The hunting lodge of La Muette, which is also shown in this view, was, we know, already built when Du Cerceau made his drawing, and we may presume that the detached "chapelle" in the woods was built too, though, as far as I know, no other trace of it exists. Yet the views of the Tuileries to which I have already referred show the whole building in elaborate detail, though very little of it had been erected. Did Catherine de Médicis hand over the designs of De l'Orme to Du Cerceau after the former died in 1570? If so, why were they not included in *Les Plus Excellents Bastiments*, which was published in 1576-1579? At the date of the latter volume Du Cerceau was about seventy years of age, and, as we know by the preface, felt his powers of work failing him; it is hardly credible, then, that the superb drawings discovered by Mr. Ward were made

subsequently! Another interesting question is, To whom did the British Museum drawings belong before they came into the possession of George III.? They are beautifully preserved, and show no trace of the deterioration which generally follows frequent change of ownership. Du Cerceau was the founder of a long line of architects, who would doubtless treasure these unpublished drawings of their great ancestor: and Mr. Ward's suggestion is probably correct that a Du Cerceau of the eighteenth century parted with the precious heirloom during the turmoil of the Revolution.

I strongly recommend students not to rest content with the reproductions in this book, excellent though they are, but to visit the Print Room of the British Museum and see the originals. They are drawn on vellum in Indian ink, with a little shading in the same medium and occasional tinting. The execution generally, and especially of the carving and sculpture, is extremely beautiful, though occasionally the filling-in of such matters as the fluting to pilasters would seem to have been left to a prentice hand, and the drawing has suffered. Some of the views, such as those of Chambord and Madrid, are enlivened by the introduction of a host of vigorously drawn figures, swaggering, courting, and fighting with bustling vivacity. It is hardly fair perhaps to compare with these drawings John Thorpe's copies of some of the subjects—Ancy-le-Franc, Madrid, and others—in the Soane Museum, which were sketched for his own use and not for publication: but the superiority of the French draughtsmanship in its sense of form and of scale is startling.

I have dwelt at rather greater length than is usual in these reviews upon this work of Mr. Ward, for I wish to insist on its interests to our students. It is this type of book—and Professor Lethaby's *Greek Buildings* is in the same category—to which they should be persuaded, so that they may feed profitably upon the works of the ancient masters of our art, and leave aside the insipid juiceless extract of handbooks.

We hear laments now and again that the race of learned and cultured architects of former days is disappearing, lost in the clamorous, strenuous rivalry of our modern practice. The complaint is, I think, quite groundless. Wilkins and Penrose are gone, it is true, "exemplo monstrante viam," but they do not lack successors; and among those who carry on the tradition of their exact and scholarly method must be numbered William Henry Ward. Here is a posy for him clipt from Du Cerceau's contemporary, Montaigne:—

I hon him thanks that he hath had the hap to chuse, and knowledge to cull-out so worthy a worke, and a booke so fit to the purpose, therewith to make so unvaluable a present unto his Countrie.

JOHN W. SIMPSON [F.]

* There is a clerical error in the title of the *vue du côté du regard du Louvre*, which is described as an "isometric projection." Both views are really in perspective, with a long-distance vanishing point.—J. W. S.

TOWN PLANNING.

Town Planning Past, Present, and Possible. By H. Triggs. Thomas, A. L. L. B. & Co. Ltd., 1909. Pp. 334. Price 15s. net. 173 Strand, London, W.C.C. Messrs. Macmillan & Co. 36 Essex Street, Strand.

A considerable number of books are now in course of preparation on the subject of Town Planning. Mr. Triggs' work is the first to appear from the press. Up to the present time very little interest, either lay or professional, has been directed to the improvement of towns in this country, and there exists very little published matter devoted entirely to this subject. We have garden suburbs and a garden city laid out in accordance with a pre-arranged plan, but the rearranging and ennobling of our civic centres, the widening and improving of our traffic routes, and the connecting up of our park systems are matters which, up to the present time, have received no consideration whatever. In Germany almost every town of importance has carried out more or less extensive improvements of this nature, and the importance of so doing in America has taken such a hold of the different associations and societies which stand for city improvements as to have introduced quite a new aspect into town life. Under such conditions, therefore, the appearance of a work like that of Mr. Triggs is exceedingly opportune.

Regarded at first sight the title "*Town Planning, Past, Present, and Possible*," leads one to expect a very voluminous and extensive work. Such a title, we feel, is too ambitious for a work of little over 300 pages, and it would have been better had the author designed it from the outset merely as a review. Considered as a comprehensive review of what has been done and what various authors think and say, the book is undoubtedly a success and has a real value; but, finding as we do that it consists almost entirely of a compilation of matter extracted from existing works, we cannot allow for it the place which it would have deserved had it shown more originality in its treatment and been the result of more original research. Stubben, Eugène Hénard, and Camillo Sitte are naturally the authors to whom the greatest debt is due, and whilst the extracts from these authors are much to the point, still we feel that they have been accepted with too little reservation and now and again hardly fit in with the times.

The book is divided into six chapters, arranged under the following heads:—I. Introductory; II. Types of Ancient and Modern Towns; III. The Circulation of Traffic; IV. Town Expansion; V. The Planning of Streets; VI. The Planning of Squares and Open Spaces.

The introduction is a plea for popular interest in the subject and a *résumé* of what has been done; and as such is a useful piece of work.

"Types of Ancient and Modern Towns" is in some ways an unfortunate heading, as emphasising results rather than origins. The author begins the chapter well, and his theories on the origin of

towns are very sound, but his types of towns—the Radial, the Rectangular, and the combination of both—are not sufficiently dwelt upon in reference to their historic association. Types of towns being only results, the real interest attaches to the influences, historic and geographic, which have brought about these results. The analysis would have been better headed thus:—Towns, Ancient, Mediaeval, and Modern, or:—Towns, planned under Influences Military, Commercial, and Residential.

The chapter on "The Circulation of Traffic" contains much that is of great interest, but the author relies too much on the work of M. Eugène Hénard to the neglect of recent events, and has attached insufficient importance to what may be described as the modern revolution in public transit—the redistribution of population which has already followed and is still following the introduction of the tramway system. This is certainly deserving of more attention.

The chapter on Town Expansion is immature, and a little disappointing. Here we should have appreciated some of the author's own suggestions, or at least original criticism of what has already been done, but instead he practically resorts to a short and concise description of the more important of the garden cities and suburban schemes, which, up to the present, stand as our only practical illustration of organised town planning in this country.

In the chapter on the Planning of Streets the suggestion is offered that the straight and curved streets are two means to exactly the same end—a confusion of ideas which we much regret the author shares with more than one prominent German writer on this subject, and whose views he has undoubtedly accepted too freely. He says, "There is no doubt that the curved or winding street has a more picturesque effect than that which is straight." Of course no one doubts this, but what one does doubt is, whether it should be the objective of every street to be picturesque. To compare the beauties of the High Street, Oxford, with those of the Rue de Rivoli, Paris, is unfair to both, and, followed as it is by a suggestion that a better effect would have been obtained in the latter by breaking it up and planting trees, seems to show a lack of appreciation of the essentials of monumental effect which may very well tend to undermine the confidence of the reader where the author's criticism is less open to question.

The description of what is being done in Chicago in the way of tube development by the Illinois Tunnel Company for the distribution of heavy goods traffic should prove of considerable interest. The author says: "The Chicago and Illinois Tunnel Company now own and operate upwards of sixty miles of underground freight tunnels in the business parts of the city. Most of the sixty miles of tunnels are 6 feet wide and 7 feet 6 inches high, the roof forming an arch. The main or trunk tunnels are 12 feet high and from 12 feet to 14 feet wide. The

authorities stipulated that the tunnels were to be about 40 feet underground. The company make the necessary shaft connection between the tunnels and the warehouse, and the equipment of such a shaft, with lifts, etc., capable of handling freight, costs about £1000. The tunnel cars have a capacity of about 3 tons each, and after being hauled to the foot of the lifts, they can be elevated directly into the building to be served."

Not the least interesting part of the book are the illustrations—both photo reproductions and plans: not only are they excellent in themselves, but they are also extremely well chosen. Although the work can hardly be considered as essential to the library of the skilled practitioner, as not emanating from a sufficiently original research, yet to the general public interested in the improvement of towns, and to the architectural student who wishes to obtain in one volume some general information on the subject of Town Planning, it will undoubtedly prove the most useful of the works already produced on this subject.

S. D. ADSHEAD [F.].

A STRIP OF HERBAGE.

Town Planning and Modern Architecture at the Hampstead Garden Suburb. With Contributions by Raymond Unwin and M. H. Baillie Scott, and 121 Drawings, Plans, and Photographs. Lon. Soc. Lond. 1909. Price 1s. net. [T. Fisher Unwin, Adelphi Terrace, W.C.]

It seems that for many years the annular growth of London has been checked in the direction of Hendon by the existence of a steep hill. A tube railway company noticed this fact, and obtained parliamentary powers to go under the hill and to build a station at the northern end of Hampstead Heath. In the ordinary way one would expect such enterprise to result in the rapid transformation of the neighbouring countryside into the usual building plots, with all those messuages, hereditaments, and appurtenances thereon as thick as the grave-stones of a modern cemetery and as ungainly.

Luckily this commonplace catastrophe was in this case anticipated by a public-spirited lady, Mrs. Henrietta O. Barnett, who enlisted the sympathy of many people, with the result that the Hampstead Heath Extension Council was formed. This Council bought from the Eton College Trustees eighty acres of Wyldes Farm, adjoining both the Heath and the new tube station, and handed it over to the London County Council as an extension of Hampstead Heath. This may appear very simple now that it is an accomplished fact; but when it is pointed out that nearly £44,000 was involved it will be realised that a great deal of unselfish enthusiasm was shown both by those who asked and by those who gave; and, moreover, it appears that the College Trustees did not show the grasping spirit which is sometimes noticed in landlords to whom great increments come.

The story did not stop at this point, however, for the remainder of the farm—some 240 acres—

was taken up by the Hampstead Garden Suburb Trust, Ltd., a semi-philanthropic trust with a *personnel* largely recruited from the Extension Council, for the purpose of running a life-size experiment in artistic suburban development. This Trust commenced work on a plan prepared by Mr. Raymond Unwin in consultation with Mr. Edwin L. Lutyens [F.], under a private Act of Parliament, which of course overrides the ordinary by-laws, and substitutes more congenial and reasonable restrictions.

In order to start building operations, subject to proper control, the Trust let some seventy acres of the newly created building land to the Hampstead Tenants, Ltd.—a co-partnership concern—and another large parcel to the Improved Industrial Dwellings Co., which organisations have between them erected about £120,000 worth of cottages, villas, and flats. Smaller lots were let to individuals whose buildings are said to amount to about £40,000, and a large area was let to the Garden Suburb Development Co. (Hampstead), Ltd., which has taken in hand the construction of houses of the upper lower middle class to the value of over £85,000, and it is this development company which is responsible for the book under review.

It is clear from the figures above quoted, representing a total of 300 properties, that the venture is well started towards success, especially in the case of the cottages, and we are impressed by the great step which it indicates in the direction of meeting our old friend the housing problem. All that is necessary is to find some open land within a reasonable journey of the overcrowded town, to obtain a Private Act, to lay out a village generously and erect cottages, all under the guidance of architects, and then to bundle over the whole thing, with costs, interest, and all, to a co-partnership organisation of the tenants. Thus there will be the most suitable accommodation that brains can devise and money can buy, occupied by the people who own it, paying its way without a taint of false charity. The old slums will remain and will still be overcrowded, but that is another matter.

The book touches upon this end of the property but lightly, and naturally it deals more fully with the interests of the development company, but it gives a very fair idea of the suburb as a whole. The people who are responsible for this garden suburb have every right to be proud of the result of their first two years' work, but we think we should make it clear that the book is a record not only of achievement but also of ambition.

Of the designs which are reproduced many are quite clever, some are inclined to be too clever by half, but none is unworthy of careful notice. We may remark that the design of Mr. Michael Bunney [F.], which is our favourite, shows the great gain in breadth of feeling which is possible where party parapets are not required by by-law.

A chapter headed "The Englishman's Home" is contributed by Mr. M. H. Baillie Scott, whose

quaint and cunning work is well represented both in the book and on the spot. We are in complete agreement with his opening sentence, and with him we would not deplore the demolition of Myrtle Villa, and in fact a whole lot of Victorian Suburbia, in which connection it is perhaps permissible to remark that our new suburb is protected by a Great Wall nine inches thick; but we cannot obey him when he bids us discard the separate-compartment system in the planning of small dwellings. If the rooms are arranged *à suite* there is a loss of variety and privacy, and we have noticed that the smallest room of a house is most often used by the family, excepting on state occasions, for it includes all the snug, cosy, and secluded spirit of home.

Having won our hearts over to the cause the book proceeds to deal with bricks and mortar, regretting that the British workman is trained in nothing so well as in scamping. It takes us further into the troubles of the householder, remarking that it is the exceptional thing for a man to build his own house. Again it tells us that domestic architecture is worth from 25 per cent. to 50 per cent. more than mere building, or would be so if the public would only recognise it. So far we follow eagerly to learn the secret of the advantage of purchasing a house by gradual payments, and we are shown some figures from the prospectus of a building society. On the one hand you add up the rent you would pay in twenty-five years as tenant at £55 per annum, and on the other hand you add together an initial deposit, the instalments, and the ground rent you will pay in the same time as tenant-purchaser, and behold at the end of the period you will have saved £125, and will get your leasehold house into the bargain. You may add in a further sum as rates and taxes on both sides of the balance, and behold it does not alter the miracle.

Such figures as these are mere folly. Not only are they intentionally misleading, but they bring an otherwise sound proposition into discredit and tend to discount the whole publication in which they occur. If a man has the desire and opportunity to build his homestead he will do so the more readily if he is not asked to believe he will get it for nothing. Such a man will see that nothing is included in the figures as interest on the first payment of £100, which at 5 per cent. compound interest would amount to nearly £350 in the time; that no interest is taken on the further instalments of capital; and that no allowance is made for costs, repairs, and the many risks and liabilities of ownership.

The real reason why it pays you to own your house is that you secure both a good tenant and a good landlord. You get the house that you will like, you avoid the risks of empties, bad tenants, and so forth, you earn the landlord's profit, and you gain in personal standing. On the other hand you lose in mobility, and that is the only drawback to the best investment a family man may make.

The remainder of the book tells of the local history and associations of Hampstead; of the days when Dick Whittington passed near by to seek his fortune in London, as many a million have sought it before and since, with the result known as overcrowding; of the days when the hoofs of Black Bess spurned the coaching roads which the Romans built; of the days when members of the Kit-Cat Club and other notables knew the Heath, and of the more recent days with which the book is directly concerned.

We think the work will draw many sightseers to Golden's Green, and, after all, that is its principal purpose. What the impression upon the visitors will be remains to be seen. We overheard one man speaking of "the place where those funny-shaped houses are," and although we do not hold up this remark as intelligent criticism, it may have a grain of that common sense which is the attribute of the man in the street. We are so thoroughly in sympathy with the plea of this experiment that we sincerely trust it will not wander too far in search of the ideal. This suburb must not smack too strongly of scene-painting—of the Old English village that one has known at exhibitions and charity bazaars—or it will fail, and the independent spirit of the cockney will take him back to "awful Old England again, with houses both sides of the street," with regiments of tenaces and with streets that are paved, albeit not with gold, and crowded with men whom he can understand. For there is merit in the streets, the crescents, and the squares of residential London. They are thoroughly English, and represent not only the worst but also some of the best qualities that we citizens inherit as a race.

J. NIXON HORSFIELD [1].

THE LEEDS HEALTH CONGRESS, 1909.

REPORT OF THE INSTITUTE DELEGATE,
MR. EDWIN T. HALL [F.].

Of course a Health Congress deals with a wide range of subjects all focussed round the life of the human unit from its conception to the final disposal or dispersion of the earthly envelope in which it is enshrined. The condition of its birth, nutrition, housing, education, recreation, and employment are dealt with in micro-copic detail, with the aim and object of making a citizen sound in mind and limb, clean in body and mind, athletic and humane, capable and patriotic. With the attainment of these aims we shall hear less of the demands for rights and more of the recognition of duties to the State; a nobler plane will have been attained. The place which architecture and the architect hold in the development of the scheme is very important, and a brief reference to what has transpired at Leeds will be suggestive.

It was but natural that "town planning" should be discussed, not only because of the Bill before

Parliament, but because Leeds is engaged in a scheme of rebuilding a part of the city consequent on clearing away the unhealthy houses over a very large area. Wide roads are being made—broad avenues for light and air. Papers on town planning were read by Mr. P. Robinson [J.], President of the Leeds Architectural Society; by Dr. Freemantle on Letchworth as an illustration of a complete scheme; and by Mr. Lancashire, the City Engineer, who described the city scheme now in process of execution.

Leeds is an advocate of back-to-back houses, rather than "through" dwellings, on the ground that in a town they are the cheapest form in which the poor can be housed in a self-contained dwelling. On this subject there was a good deal of controversy. A back-to-back house is one room deep separated by a party-wall from a similar house at its rear. Sanitarians point out the evil of no through currents of air with this type of house, and in practice the exclusion of sunlight from all such houses facing north. Assuming the adoption of the type, useful suggestions were made for the insertion in the party-walls of extract flues carried above the roof, and that in streets laid out for such houses the buildings should be axially north and south, so that every room might get sunlight. Emphasis was also laid on the necessity for better design of all houses, however small.

It was urged that in these days of electric trams it would be far better not to rehouse workmen within any city of moderate size at all, but to reserve all cleared sites for business and public buildings, and to take the people out to the suburbs, and that with this end in view a scheme should be laid down for the laying-out of the suburbs, conserving woodlands, areas of water, and other natural features.

The general principles of replanning within a city were also suggested by one speaker: the main routes as direct as possible between objective points, with circuses at the intersections of main routes, and at these only, placing in the centre an architectural monument from which radial streets should be formed; that island sites should be reserved for public buildings from which branch streets should be so planned that they might command views of such buildings as foci of interest.

A very able paper on the planning of schools was read by Mr. R. G. Kirkby [A.], in which he condemned the large central hall from which the classrooms all opened as insanitary, advocating in its place a long marching hall for physical and military drill communicating with classrooms detached on three sides. He also described open-air schools, with an open corridor at the rear of the classrooms, and in front of the rooms wide open verandahs in which the lessons could be given when weather permitted. It is no doubt generally known that at Winchester School the lessons in the summer term were at one time given in the cloisters, so that that term was known as Cloister Term.

Visits were paid to Harewood House and Temple-newsom, both described by Mr. Kitson, architect; to Bolton Abbey, described by the Rector (the Rev. J. F. McNab); to the Norman Church of Adel, described by the Rev. W. H. Draper; to Kirkstall Abbey, described by Mr. Kitson Clarke; and to the Moravian settlement of Fulneck. A large party also visited the City Hospital at Seacroft, which was described by the architect. The Burmantofts and Wortley Works attracted many visitors.

There was a *sirée* in the Medical School, where, among other subjects of interest, was an excellent display of lantern slides of the abbeys and monasteries of Yorkshire. A *conversazione* at the Fine Art Gallery was well attended, and large numbers had the opportunity of renewing their acquaintance with the many fine pictures there displayed.

27th July 1909.

THE SCHOOL OF ARCHITECTURE, UNIVERSITY OF LIVERPOOL.

By PHILIP THICKNESSE [F.].

The book which the School of Architecture in the University of Liverpool has recently published as its Prospectus deserves notice, I think, in the *JOURNAL* of the Royal Institute of British Architects; at the same time it can claim only to give reproductions of the drawings shown last month at the Exhibition of Students' Work in the Tate Library. That the reproductions are excellent, and even beautiful, cannot be denied; but necessarily much of the interest and individuality of the drawings is lost by reproduction.

Having said so much, I should like to speak of the work shown in the exhibition itself, which I had the pleasure of seeing and examining at some length, though without any thought of writing about it. The first thing that struck me was the great advance made in the standard of students' work since the School of Architecture was founded. All the drawings were worthy of attention, and most of them repaid close examination, while a number both of the drawings and designs were very interesting.

To begin with the first-year students' work—the drawing of the Orders. One recalls the dull, mechanical operation of copying the Orders from a book; at the best but drawings, with scarcely the slightest suggestion of ever having been anything but drawings. Here at the exhibition were drawings, either complete or on the way to completion, of buildings or parts of buildings, each of them a composition in itself—finished with the surroundings and atmosphere, the colour and background of Greece. It was evident that the student had been encouraged to see a white marble building in the sunlight, and had been taught that the end and object of his life was to be the making of buildings

and not of drawings. This must always be one of the greatest difficulties to overcome, and there was evidence on every hand that it had been impressed on the students from the first. The Prospectus illustrates the two most finished of the compositions, but there were many at the exhibition in various stages of completion, all of them showing some originality of treatment and choice of subject. One might plead, perhaps, if one were bold enough to criticise, for greater attention to be given to pencilling, for nothing can so well train a young student to decision, firmness, and delicacy as to be taught to pencil with clean, sharp, firm line. It is important to remember that we are training architects, not draughtsmen: yet good drawing is the road, and we must have it well paved.

The work of the older students reaches an equally high standard, the subjects being especially well chosen—from the plain Liverpool merchants' houses of 150 years ago, such as Seaforth Hall and Rodney Street, up to Sannicheli's buildings in Verona, all carefully measured and drawn. A most commendable feature was the exhibition, side by side with the drawings, of the various sketches and measurements taken on the spot. Among the studies exhibited were some quite admirable models in clay. This work has been too long neglected in our students' curriculum; and one is glad to notice that considerable attention is being given to it in the Liverpool School, and that some of the students already show great advance in this important branch of their work.

Lastly, there were designs for buildings, a Country Town Inn, for instance, and ambitious designs for a Campo Santo, not to mention a magnificent villa in a very "grand manner." Very noticeable was the originality that characterised each of the designs. One often finds the teacher's ideas impressed so deeply in the mind of the student that he is incapable of expressing any individuality; his drawing or design is the teacher's and not his own. In the Liverpool School this is not the case. It is apparent that the general principles are those of the Professor, while each student has been encouraged to design for himself within those limits. He has been helped and taught how to put his design into shape, but it has not been done for him.

I came away from the exhibition with the regret that it had not been my lot to be born in these later times, that I might have the advantage of such teaching. In reviewing the work of the School one realises that there is a definite aim and definite teaching there: the teaching of the Classical tradition. Anyone who believes in the definite teaching of a definite architecture for the young architect as the foundation from which he may work out the problems of every-day design, will have seen in this exhibition unmistakable evidence of that enthusiasm for the spirit of academic classical architecture which is being instilled into the students of our Liverpool School.

LOADS UPON ROCKS AND SOILS.

To the Editor of the JOURNAL R.I.B.A.,—

SIR,—It has been suggested to the Science Committee that the available information as to the weights which, under varying conditions, may be safely put upon the different rocks and soils met with in the construction of foundations is both meagre and conflicting, and that if individual members of the Institute would put at the disposal of the Committee the various detailed particulars they must possess as to actual experience upon their own work, it might be possible to collate the whole and issue the result for the benefit of members generally.

The records of laboratory experiments as to the crushing of small pieces of stone, while useful in connection with building construction, are sometimes misleading if used in considering the bearing power of those materials for foundation purposes. And of course there are many materials, and those probably the most common, that cannot be usefully dealt with at all upon a small scale.

In view, among other things, of the facts (1) that a large uniformly loaded surface will generally sustain a greater load per unit of area than a small one, (2) that the amount of moisture in the soil may greatly affect its value as a foundation, (3) that the possibility of the literal escape of the load-carrying material is an important consideration, (4) that the compressibility of materials varies much, and (5) that, under some conditions, sliding of the building upon its foundation or of underlying strata upon one another may be anticipated, it is clear that a mere tabulation of the weight-bearing capacity of rocks and soils at so much per square foot cannot be a trustworthy guide in practice.

The Committee therefore invite all who have items of information in their possession to send them to us for the purpose indicated above. It is especially requested that all notes sent be as full as possible, and that all facts likely to affect the results be mentioned. It will be helpful if the spot to which particulars refer can be named, and particulars of the strata both above and below the actual foundation level, together with mention of the depth of foundation below the surface, are desirable.

As this is a subject of great importance to all architects, we venture to hope that there will be a ready and generous response to this appeal. The names of architects and of buildings will be regarded as confidential when such a course is desired by the correspondents; and if the information obtained by the Committee proves of sufficient interest to justify the issue of a report, a draft of the proposed document will be sent to each contributor of material used.—Yours faithfully,

MATT. GARBUTT,

ALAN E. MUNBY,

Hon. Secs. Science Standing Committee.



9 CONDUIT STREET, LONDON, W., 28th August 1909.

CHRONICLE.

Adjourned Special General Meeting (By-laws), 21st July 1909.

MR. JOHN STAFFER, L., in the Chair.

The Business of the Special General Meeting of the 21st July, adjourned from the 28th June, was to announce the result of the poll on the question of the adoption of the resolution limiting the period of service of members of the Council [JOURNAL, 24th July, p. 645]; to consider a new By-law (35A) which had been framed by the Council in compliance with the resolution passed at the Business Meeting of the 7th June [JOURNAL, 12th June, p. 564], and the revised Draft of By-laws 44, 45, 61, 65, together with the Declarations which had been referred back to the Council by the Meeting of 28th June [JOURNAL, 24th July]. The By-laws presented for the consideration of the Meeting were as follows:—

35A. No notices or other documents other than those necessary for the usual conduct of the business of the Institute shall be issued to the various classes of members and Licentiates, save those directed to be so issued by the Charter or By-laws or by resolution of the Council, except that in case of emergency the President shall have power to issue any notice he may think fit, provided that he report his action at the next meeting of the Council.

44. The Council shall annually appoint a Board of Architectural Education to deal with the education of students in architecture, and to conduct by examiners appointed by the Council such examinations as are required by the Royal Institute under the provisions of any Act of Parliament or of the Charter and By-laws. The Board shall not exceed twenty-one in number, inclusive of the President, who shall be an *ex-officio* member, and shall consist of such subscribing members of the Royal Institute and such other persons as the Council may invite. The Council may, on the advice of the Board, invite other representative persons to act as advisory members of such Board. The Board shall have power to elect its own officers from its members, and to draw up regulations for its procedure. The Board may conduct its own correspondence, but shall take no public action nor incur any pecuniary responsibility. The Board shall submit any scheme they may devise for education and examination to the Council for their consideration; and if and when the Council shall approve such scheme the Board shall have the supervision thereof, and shall annually report to the Council thereon, and may submit any suggestions for variations thereof to the Council for their consideration.

The scheme adopted by the Council and any variation thereof adopted by the Council from time to time shall be

forthwith published in the JOURNAL of the Royal Institute. No such variation shall in any way prejudice any pupil in respect to any work done by him under the scheme existing previous to such variation.

Every Student who has passed the examination for that grade instituted or to be instituted by the Royal Institute, and shall have satisfied such other requirements as the Council may from time to time prescribe as applying to Students, shall be entitled to be registered as Student of the Royal Institute or British Architects subject to such conditions and to such restrictions as to continuance as the Council may determine, and a Register shall be kept setting forth the Students' names in the chronological order in which they have passed.

45. Every candidate for the Associate-ship, after the year 1913, before presenting himself for the Final Examination shall have either (a) passed through the course prescribed under the scheme adopted by the Council as above, or (b) proved to the satisfaction of the Board of Education that he has been otherwise properly trained as an architect.

61. The Annual General Meeting shall be held on the first Monday in May, to receive and consider the Report of the Council. A list of the attendances at the Meetings of the Council and of the Standing Committees shall be submitted to the Annual General Meeting.

65. A Resolution respecting the adoption of a proposed By-law, or the alteration, suspension, or repeal of any existing one, shall be declared to be carried at a Special General Meeting if there shall be present at least forty Fellows, and if the same be supported by the votes taken by show of hands of a majority consisting of two-thirds of the Fellows present and voting thereon. Provided always that the Resolution shall be suspended on a demand being made in writing to the Secretary, and received by him within seven days of the Meeting, by at least twenty Fellows that a poll thereon shall be taken by voting papers, or it shall be suspended if the Council at their next meeting demand that a poll thereon shall be taken by voting papers.

A Resolution on any proposal affecting the property or management of the Royal Institute shall be declared to be carried if there are present at least fifty members, of whom at least forty shall be Fellows, and if the same be supported by the votes taken by show of hands of a majority consisting of two-thirds of the members present having a right to vote and voting thereon.

A Resolution on any professional question shall be declared to be carried if there are present at least forty members, of whom at least twenty-one shall be Fellows, and if the same be supported by the votes taken by show of hands of a majority consisting of two-thirds of the members present having a right to vote and voting thereon.

Provided always that the Resolutions under both the last heads shall be suspended on a demand being made as aforesaid.

If the poll be demanded by any twenty Fellows as aforesaid, Scrutineers shall then be appointed by the Council, and the meeting shall be deemed to be adjourned for a period of not less than fourteen nor more than twenty-eight days from the date of such demand. If the poll in either case be demanded by the Council, then the appointment of Scrutineers shall be made by the Council, and the meeting shall be deemed to have been adjourned for a period of not less than fourteen nor more than twenty-eight days from the date of the Resolution of the Council demanding the poll. A voting paper containing the proposal submitted, together with an official report of the discussion, shall be printed and sent to all members having a right to vote thereon. Each voting paper shall be filled up, signed by the member, and returned to the Secretary at least three days before the said adjourned Meeting. The voting papers shall be handed by the Secretary to the Scrutineers, of whom five shall be a quorum, and whose decision shall be final; they shall then count the votes and

announce the result at the said adjourned Meeting. The said Resolution shall be declared to be carried if supported by a majority of the voting papers so returned; otherwise it shall be declared to be negatived.

A Resolution declared to be carried, and requiring under the provisions of the Charter or By-laws to be contained at a subsequent Special General Meeting, shall be deemed to be so contained provided it be by a majority of those present having a right to vote and voting thereon at the said subsequent Special General Meeting. Or if a poll has been demanded as aforesaid in respect of the Resolution of the first Meeting, then if the result of the voting papers is to confirm the Resolution carried at the first Meeting such Resolution shall be deemed to be confirmed by such voting papers, and such adjourned Meeting shall be deemed to be the subsequent Special General Meeting. If the Resolution be negatived by the voting papers then in any case it shall be declared to be rejected.

The demand of a poll at a General Meeting shall not prevent the continuance of the Meeting for the transaction of business other than that on which such poll has been demanded.

In all cases, except as otherwise provided, the voting shall be by show of hands; and a Resolution of the Royal Institute so voted shall be declared to be carried if supported by a majority of those present having a right to vote and voting thereon.

The only change in the Declarations consisted of the insertion of the following sentence in Forms A, B, and D, with reference to the member's promise to have no interest in any contract or materials supplied to works on which he was engaged:—

This promise is not to preclude me from holding shares in any limited liability company supplying such materials, but in that case I undertake to inform my client in writing of the fact that I am interested in such company.

The Resolution on which the poll had been taken was as follows:—“That one-sixth of the Ordinary Members and Associate Members of the Council shall retire each year, and shall not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of equality of seniority the rotation to be decided by lot.”

The report of the Secretaries having been read [see JOURNAL, 24th July, p. 645], the CHAIRMAN declared the resolution duly carried, and announced that a By-law would be framed to embody it.

Mr. LEONARD STOKES [F.] pointed out that as the whole of the Council “retired” every year, the words “shall retire each year and” were superfluous and should be deleted.

The Meeting agreed, and the words were struck out.

The CHAIRMAN asked the opinion of the Meeting as to the exact intention of the Resolution. Was the limitation to apply only to consecutive service as Member of Council, or was it to include a period of service as office-holder?

Mr. G. A. T. MIDDLETON [A.] suggested that it should be senior service as ordinary Members of Council.

Mr. C. H. BROWN [F.]: The Resolution clearly only applies to ordinary Members of Council, that being the only class of the Council the By-law is dealing with. Vice-Presidents and the Hon. Secretary are dealt with in previous By-laws.

Mr. W. HENRY WHITE [F.]: That was quite my intention in moving the resolution.

The CHAIRMAN: As I understand, a By-law embodying this resolution would be entirely complied with if a member served six years as an ordinary Member of Council, four years as Vice-President, then again six years as Member of

Council, and again four years as Vice-President. That contingency is of course extremely remote, but the Meeting should realise that it does involve the possibility of such continuous service.

Mr. WHITE: As the mover of the resolution I quite accept that.

On By-law 35, with regard to the issue of notices, Mr. MIDDLETON said he thought the Institute in General Meeting should have the right of directing the issue of notices just as much as the Council. Again, the By-law made no provision for a substitute in case of the President being unable to attend from illness.

The CHAIRMAN, replying to the first point, said that at a previous meeting a proposal brought forward by Mr. JENNINGS that a resolution passed at a General Meeting, subject to the Council's chairing it by voting papers, shall be binding on the Council had been rejected. A provision such as Mr. Middleton suggested would be rather counter to that. He did not think they need anticipate any interference with the wishes of the General Body on that matter. The clause practically acted as a safeguard.

The CHAIRMAN, in reply to Mr. Maurice B. Adams [F.], stated that By-law 36 already provided against the issue of any communication with the balloting papers for the election of the Council, &c.

The By-law was then put and carried as printed.

With regard to By-law 44 (Board of Education), which was next considered, the following Memorandum had been placed by the Council on the Agenda issued to members [see *Supplement*, 14th July]:—

The Council cannot help feeling that the By-law 44 dealing with education and examination was opposed under a misapprehension. The By-law as drafted is the outcome of a report to the Council of a Joint Committee of the old Board of Examiners and the old Board of Architectural Education, which were equally represented. The Institute has been severely criticised in the past on the ground that it cared only for examination, not for education, and the Council thought that this criticism could be most effectively met by combining the two Boards, so that the education of students and their examination should be properly correlated. There is no feeling of antagonism to the old Board of Examiners, many of whom it is hoped, will act as members of the new combined Board. The Council will, and must always, retain full control over the new Board, but it is felt to be far better that such a Board, strongly constituted, should control and supervise the examinations, reporting the results in the same way as the old Board of Examiners have hitherto done and the Board would also deal consistently with the question of exemption from the examinations which has hitherto been a matter of much difficulty. Hitherto, the actual appointment of the examiners for each examination has been made by the Board directly and not by the Council, and the Board of Examiners has always reviewed the results of the examinations before reporting to the Council, and the same would be done by the proposed new combined Board.

By-law 44 as revised being put to the Meeting, Mr. ARTHUR CROW [F.], referring to the increase of the number of members of the Board from sixteen to twenty-one, asked if the five extra members were to be examiners.

The CHAIRMAN: It was felt when this By-law was under discussion that sixteen was too small a number, and the Council propose to increase it to twenty-one. It would be very undesirable in a By-law, which is to be in working for many years, to compel the Council to put any specific members on the Board. It is the intention that the Board of Examiners should be represented fully.

Mr. CROW: Then the Board of Examiners, *qua* Board of Examiners, and the Statutory Board will no longer exist.

THE CHAIRMAN: They cease to be independent bodies.

MR. JOHN W. SIMPSON [J.]: My own impression or what is intended is that it would be quite in order for the Council under the By-law to set up a Statutory Board again. There is no intent on of doing away with the Statutory Board, but it would be an unnecessary piece of machinery to set it up to do. The Board of Education, as I understand, would have the power of recommending to the Council that the Statutory Board should continue.

MR. J. DOUGLASS MATHEWS [F.]: The Statutory Board is always appointed for a specific purpose, and its Examiners are generally those who are experienced in the examinations. It is a different thing altogether from the General Board of Examiners. It always has been a separate Board, and I do not see any reason to interfere with it.

MR. SIMPSON: The new Board can only recommend to the Council.

MR. MIDDLETON: Would it be possible to do away with the Statutory Board? Is it not appointed under an Act of Parliament, and independent of our By-laws?

THE CHAIRMAN: It is a Board appointed by the Institute. The words of the Act are:—"The Royal Institute of British Architects may cause to be examined by such persons and in such manner as they think fit all candidates presenting themselves for the purpose of being examined as to their competency to perform the duties of district surveyor, and shall grant certificates of competency to the candidates found deserving of the same."

MR. SIMPSON: Hence the Statutory Board can be appointed by the Council.

THE CHAIRMAN, replying to Mr. Crow: The Statutory Board does not go. The existing members appointed under the old By-laws would necessarily go when the Revised By-laws come into force. But the Council has power to appoint a fresh Board for statutory examinations.

MR. CROW: The Statutory Board of Examiners will no longer be in the *Kalendar*?

THE CHAIRMAN: That depends on the Council. If they choose to appoint a Statutory Board of Examiners there is nothing to hinder them.

A MEMBER: And there is nothing to compel them to do so. They can make the one Board conduct all the examinations.

MR. MATHEWS: I take it that there will be separate Boards—the Statutory Board and the ordinary Board of Examiners. Whether they are part of the same Board is another matter altogether. But it would be a separate examination.

THE CHAIRMAN: There is no doubt about that.

MR. H. SHIPLEY [J.]: pointed out that in the second line of the first paragraph "students in architecture" were referred to, but in the fourth line of the second paragraph the word "pupil" was used. Should not the latter word be altered to "student"?

The Meeting agreed to the alteration, and it being explained that the term "student" had also a technical sense when applied to those who had passed the Intermediate Examination, it was agreed to print the word with a small "s" when used in its ordinary sense, and with a capital where it denoted registered "Students" of the Institute.

THE CHAIRMAN, before putting the By-law to the Meeting, said he wished to draw attention to a point which he thought of some importance. The By-law laid down that the examinations were to be conducted "by examiners appointed by the Council." The Council had full control, and must have full control, over the Board of Examiners and over every other Committee of the Institute; but the Board of Examiners had been placed sometimes in a very serious difficulty. At the last examination, for instance, in the case of one of the papers, no single one of the members who had been appointed by the Council was able to act; yet the Board of Examiners had no power whatever in such an emergency to go outside the members appointed by the Council and get others to act in their place. He wished to

suggest that no harm would be done to any member of the old Board of Examiners, or of the Board of Education, if the word "appointed" were altered to "approved." It often happened at the examinations that a member of the Board was unable to serve, and it was then too late to go to the Council to get someone else appointed in his place. If the Meeting agreed to the word "appointed" being altered to "approved" it would get them out of that difficulty.

MR. MAIR GARRETT [F.]: The object is to allow an examiner to act first and to be approved or afterwards, if necessary.

The Meeting agreed to the alteration, and the By-law as amended was then put and carried.

By-law 45 was agreed to as printed.

By-law 61 being before the Meeting.

MR. H. SIMPSON suggested that the list of attendances at the meetings of the Board of Education should be published at the same time as the attendances at the Standing Committees, to show to the General Body the amount of time the work of the Board involved.

MR. C. H. BRODRIP [F.] pointed out that the list of attendances was published as a guide to the voters. The General Body had no voice in the election of the Board of Examiners, and it would be invidious to publish the attendances on that Board for this reason: one man perhaps was appointed to examine in one particular subject, and he only attended the meetings when that subject was under discussion. That might be only once in the session, and it would be extremely misleading to publish that man's one attendance unless the General Body were acquainted with all the circumstances.

MR. F. T. W. GOLDSMITH [F.]: The work done by the Examiners is done not at the Board meetings, but before or after the Board meetings. The preparation of the questions and the examination of the answers, which is an important part of their work, would never appear.

MR. MAX CLARKE [F.] considered that the members of Committees enumerated in the *Kalendar* should get the credit of their attendances. It was customary in the Borough Councils or London to publish a list of attendances, together with the number of Committee members were called upon to attend. If the member was only called to two Committees, and he attended those two, he had done all he was asked to do.

MR. JOHN W. SIMPSON [J.] supported the proposal. The more the General Body was informed about the doings of the Council and its Committees the more interest they would take in those bodies. He should like to see the attendances on the Board of Education published with the other Standing Committees. As regards the attendances on the Council Committees, that perhaps was a matter for the Council itself to decide when it drew up its report.

The proposal to insert in the By-law the words "of the Board or Architectural Education" being put to the vote was negatived on a show of hands.

THE CHAIRMAN, in presenting By-law 65, reminded the Meeting that up to now, if a member wanted to suspend a resolution he had to get a protest signed before the meeting closed at which the resolution had been passed. It had been pointed out that this regulation might preclude the sense of the whole of the General Body being taken on certain matters. Words had therefore been put in enabling members to demand a poll within seven days.

MR. A. R. JAMES [F.] said he had sent up an amendment to the Council providing for an opportunity to be given to provincial men to demand a poll. While accepting it in principle, he thought the Council had rather spoilt it in practice. Sometimes the Council and the Metropolitan members were agreed upon something which the provincial men might object to, and he thought the latter should have an opportunity of expressing their opinions. His suggestion was that a demand for a poll might be made by twelve non-Metropolitan members

within fourteen days after the publication of the proceedings of the meeting in the JOURNAL. Provincial men could not easily attend the meetings in London, and they ought to have time, after the report of the meeting had appeared in the JOURNAL, to give their votes on questions they were interested in. The By-law as framed provided for the poll being demanded within seven days after the meeting, and the signatures of twenty Fellows had to be obtained. His contention was that the time was too short and the number of signatories too many. This was a question not of a resolution published beforehand, but of an amendment which nobody knew of till it was passed. The provincial members would have to find out all about it, and then collect the twenty signatures in the provinces, probably from more than one town. The By-law now proposed would be of little use in such a case; and it passed he thought they would be treating the provincial men rather unjustly. He moved that the seven days be extended to fourteen.

MR. DOUGLASS MATHEWS seconded, and the amendment being put to the vote was carried on a show of hands by fourteen against two.

MR. H. SHEPHERD, referring to the clause detailing the procedure for taking a poll, suggested that the quorum of scrutineers might be three instead of five.

After some discussion it was agreed to strike out all reference to a quorum, and to recast the sentence so that the words "whose decision shall be final" should follow the words "shall then count the votes."

The By-law as amended was then put and carried.

THE FORMS OF DECLARATION.

THE CHAIRMAN said it had been decided at the last meeting that the Declarations should not be By-laws but regulations. In view of the discussion at the last meeting the Council had inserted the following sentence in Forms A, B, and D: "This promise is not to preclude me from holding shares in any limited liability company supplying such materials, but in that case I undertake to inform my client in writing of the fact that I am interested in such company."

MR. MAX CLARKE [F.] suggested the insertion of the words "debenture stock" before "shares."

A MEMBER: The word "stock" would be sufficient.

THE CHAIRMAN: There is no objection to that.

MR. HALSLEY RICHARDS [F.]: Supposing you hold shares in a company which is not limited. Ought not the client to be informed of that also?

MR. LEONARD STOKES [T.]: It is much more objectionable, I should think, for a man to be trading in a small unlimited than in a limited liability company.

MR. PAUL WALLERHOUSE [F.]: This is an exception in favour of the limited liability. It is the only form of such speculation allowed. Unlimited liability companies would appear to be barred by this clause as it stands now.

MR. RICHARDS: My suggestion is to cut out "limited liability."

MR. H. H. STATHAM [J.]: I move that that sentence be struck out altogether. If a man were to tell his client he was interested in a company supplying the materials, he would lose his client.

MR. HENRY T. HARR [Hon. Secretary] seconded.

MR. JOHN W. SIMPSON: I support it. The Declaration, as it originally stood, read, "I promise I will not have any interest in any work or any material supplied to any works in which I may be engaged." Let us leave it at that—that is a simple and plain statement that any client can understand. Directly you begin to qualify it and say, "I hold shares in a company which is supplying materials for the work, and I get a percentage on that"—it rather takes the effect out of the previous statement. Either omit any declaration about interest in materials, or else put it in briefly and boldly.

MR. H. A. SACHILL [F.], said he had spoken fully on this

point at the last meeting, and, at the special request of the Chairman of that meeting, he had addressed a communication to the Council on the subject. He certainly welcomed the concession the Council had made by inserting this sentence. Mr. Garbutt, at the last meeting, had suggested that the whole difficulty would be overcome if the architect informed his client in writing that he had an interest. There could be no possible harm in that, and he could not imagine a client being so absurd as to object to an architect being a business man in his private affairs, and having an interest in a company. If he disclosed everything, what possible difference could it make to the client? Let them consider the point that the client had to trust the architect with the expenditure not of a single pound but of thousands of pounds. He had made a calculation of exactly how much Portland Cement an individual architect would have to use to benefit as a shareholder in the Associated Portland Cement Company to the extent of a single sixpence, and he found he would have to use 7000 tons in the course of a year. It was too absurd. Was it not a common charge brought against their profession, at any rate by ignorant people, that an architect by not exercising the economy in carrying out a building that he would exercise in carrying out any private transaction could increase the cost of the building by £500, and so put £25 extra into his own pocket? A client, however, trusted the architect not to do that. Could he not therefore trust his architect to have an interest in a company, and to use a fair judgment? It seemed to him that they were stigmatising the profession as dishonest, or that their seniors thought they might be dishonest. If architects would not be strictly honourable in the expenditure of their clients' money, they would not be strictly honourable in observing the Declaration, in whatever form it was put.

MR. SIMPSON agreed that if the architect was an honourable man there was no need for him to make such a Declaration. If, on the other hand, he was not, he would sign it, and it would not make much difference. He would like to suggest that these words be left out altogether. As the Declaration stood it was a good, clean, honest one—that they had no interest beyond that of their client in the work. The opening words of the Declaration seemed to cover everything: "I will not accept any trade or other discounts or illicit or surreptitious commissions or allowances in connection with any work—the execution of which I may be engaged to superintend or with any other professional business which may be entrusted to me." That was good enough for anybody, and there was no question about interest in companies.

MR. HARR: I feel very strongly indeed on this point. Everyone must admit that the principle is wrong. If a man has a pecuniary interest in any company or trade concern supplying material, it is only human nature that he should look upon that material with a more lenient eye than upon any other, and he would go on specifying it although it might not be the best material. It is better to get entirely clear of such companies. There are plenty of other ways in which money can be invested.

MR. JENNIFER: There is a difference between private and public clients. In the case of a public body, if you declared that you had an interest in a company supplying the material you would be very foolish, but you would be more foolish still if you did not declare it, in case it was found out. The only way to get over the difficulty is for architects not to hold shares in material-supplying companies at all. If a man has powers enough to be privileged to serve the public as an architect, he must make some sacrifice for that privilege, and should sell out the shares if he has them.

MR. BRODIE: This subject was very thoroughly discussed at the last meeting. The Council were asked to put in some qualifying clause, and they have done so. The best thing the meeting can do is to pass the words which have been put in.

THE CHAIRMAN: I am informed that Mr. Hall, as Chair-

man, did not promise that such words as these should be put in; he promised that the Council should consider the matter. The Council and the By-Laws Committee have considered it, and this is the result.

The amendment—viz., to omit from the Declarations A, B, and D the whole of the sentence beginning "This promise is not to preclude"—being put to the Meeting was carried on a show of hands, 17 voting for and 9 against.

Mr. MATRICE B. ADAMS *E.*: What is to happen to the man that does not comply with this Declaration? There ought to be some means of bringing him to book.

THE CHAIRMAN: That is provided for in By-law 22: "Any member contravening the Declaration signed by him shall be liable to suspension or expulsion in manner hereinafter provided." The Council would have to consider the facts of the case and take what action they think fit.

Mr. ERNEST NEWTON *E.* moved that the following sentence be omitted: "I further promise that I will not take part in any competition the conditions of which have been disapproved by the Council." He objected very strongly to such an undertaking being mixed up with crime and illicit commissions. The point was sufficiently covered by some former By-law. The taking part in a black-listed competition was not the kind of crime or misdemeanour to be associated with illicit commissions. It was a most disloyal thing to do, but was not on all fours with something that was criminal in the eyes of the law.

Mr. SIMPSON seconded the amendment. The stick was much too heavy to be brandished in this way. The Council had already full powers to deal with disloyal members, and it was not necessary to put this into a public declaration. It was putting it on the same footing as the acceptance of trade discounts and illicit and surreptitious commissions. But it was not the same thing. It was a disloyal act, and should be very severely punished by the Council or the General Body. But to make a man sign that Declaration as a condition of being admitted a member was making it too solemn a form altogether.

Mr. W. HENRY WHITE pointed out that the effect of the Declaration would be that before a member could take part in a competition the conditions would have to be submitted to the Council.

Mr. HARE: This only refers to a case where the conditions have been considered by the Council and disapproved.

Mr. LEONARD STOKES: It is making too much of the whole thing. It is making the public think that we have no other method of getting a piece of work than by scuffling to get it. It is very degrading. Members should be capable of carrying out a work without having first to show their capability by sending in drawings for consideration.

Mr. JENNETT: If we have to scuffle, let us scuffle fairly. That is the object of the clause, I think. I strongly disapprove of this going in. It is not fair to put it in the same category with the acceptance of illicit commissions.

Mr. SIMPSON: I should like to make it clear that I am not opposing the principle of this matter at all. I hold the very strongest views about a man who takes part in a competition the conditions of which have been disapproved by the Council.

THE CHAIRMAN: By-law 24 says that any member "who shall refuse or neglect to be bound by a published resolution of the Council shall be liable to reprimand, suspension, or expulsion." If the Council publish a resolution declaring that the conditions of a certain competition are not fair, and that no member of the Institute ought to take part in it, is not that a resolution of the Council which carries with it the same penalty as if you signed the declaration?

Mr. HARE: I do not think it does. The Council have decided not to veto a competition, but merely to publish a notice advising members not to take part in it. If the Council decided that in future they would publish a notice to the effect that members of the Institute must not take part in any competition they disapproved, I should agree.

Mr. SIMPSON: It is quite within the powers of the Council to issue such a notice.

Mr. HARE: But they will not.

A MEMBER: If you take out this we might as well do away with the Competitions Committee.

Mr. NEWTON: Has any member ever been reprimanded for taking part in a disapproved competition?

Mr. HARE: Yes.

Mr. NEWTON: Will not that do just as well?

Mr. W. HENRY WHITE: If I understand aright, the Council do not say they disapprove, but only recommend members not to compete.

Mr. HARE: The Council have agreed not absolutely to forbid members taking part. They simply say the conditions are unsatisfactory.

Mr. WHITL: And if the Council only recommend members not to compete they will not be disapproving.

Mr. HARE: Yes.

Mr. WHITE: Then I think that is not what was understood.

Mr. SIMPSON: We cannot have it two ways. The Council should be strong enough to veto the competition and disapprove of the conditions—in which case a man can be penalised for going in for it.

Mr. MATRICE B. ADAMS: I feel very strongly with Mr. Hare that we ought to have some such declaration as this, but I quite see the points which have been raised by Mr. Simpson. If the Council are going to be so weak-kneed that they will not take the responsibility of doing what I consider is a primary duty on their part, then I think it is foolish to ask members to sign this. I would ask members to sign this Declaration, not that the majority of them would compete, but that there are some who have done it. I have known cases where the Council or some of them were determined to take a decided line, and it would have been much more healthy if they had done so. Therefore I think that Mr. Hare, before he asks us to vote one way or the other, should be in a position to tell us whether the Council intend to back us up.

Mr. HARE: I am afraid it is quite impossible for me to give Mr. Adams any assurance. Some members of the Council feel very strongly on the subject, and would like to see a competition absolutely vetoed if it were unsatisfactory.

Mr. STOKES: You do not want a resolution and a declaration; and the declaration without a resolution is no good.

Mr. HARE: Suppose we have the declaration to go on with?

Mr. STOKES: That is no good, because a man only promises not to go in for a competition that has been definitely barred.

Mr. HARE: No. He promises not to go in for a competition the conditions of which are disapproved by the Council, and the notice which is published conveys disapproval. The words run as a rule: "The Council consider the conditions of this competition unsatisfactory, and members are advised not to take part in it." "Unsatisfactory" conveys disapproval.

Mr. STOKES: Then no declaration is necessary if they can express themselves as strongly as that.

Mr. STATHAM: The profession has constantly to fight against absurd and perfectly unjust conditions in competitions, and the adoption of such a clause as this is really one weapon for counteracting them. It gives the Council more powers against unfair competitions.

The amendment that the words "I further promise that I will not take part in any competition the conditions of which have been disapproved" be omitted being ultimately put to the vote was carried, 16 voting for and 9 against.

Mr. SIMPSON: Now that we have passed that declaration in its present form, may I express the hope that the Council will deal very strongly with members who enter for these competitions?

Mr. W. HENRY WHITE: With reference to the words "I promise that I will not have any interest in any contract,"

there are many cases where, for financial purposes, the architect's commission is added to the amount of the contract.

MR. MAIR GADDETT: In works for public boards and companies it is sometimes insisted upon that the architect's fees shall be part of the contractor's contract, and paid by the contractor. In that case the architect has an interest in the contract.

THE CHAIRMAN: Mr. Hare points out that that is done at the client's suggestion, and nobody can take exception to it.

MR. SIMPSON: Is it necessary to put those words in? I am inclined to agree with Mr. White. These things are all right so long as things go smoothly. I understand that it does occur at times that the architect's fees are included in the contract, in no way in an illicit or surreptitious manner, but for financial reasons, and it happened that the client fell out with his architect towards the end of the work, or during its progress, and he chose to make that a ground for refusing to pay his architect, or a ground for bringing an action against him, the architect might be put in rather a difficult position, because undoubtedly he would have an interest in the contract. It would be to the extent only of his fees, it is true—there is nothing illicit in it. But we know how difficult it is to clear these things up when once launched in a legal dispute, and it does not seem worth while to give any ground whatever to a cantankerous client to lay hold of the architect in that way. These words do not occur in the present Declaration.

MR. WHITE: I may say that I have a case in point where the amount of the architect's fee is to be added to the contract for the purposes of finance. The fees are specifically stated, and they have to be paid to the architect by the builder. I beg to move that the words "in any contract or" be omitted.

MR. SIMPSON seconded.

THE CHAIRMAN: The Declaration would then read, "I promise that I will not have any interest in any materials supplied to any works in which I may be engaged."

MR. BOLTON: Surely that will not do. "I will not have interest in any contract" means a contract the value of which is composed of labour and materials.

MR. HARE: Do I understand Mr. Bolton wants to add the words "of labour" after "materials"?

MR. REGINALD BLOMFIELD, A.R.A., *Vice-President*: There is a possibility of a legal difficulty. This sort of interest in the contract cannot be avoided. In very big contracts these fees have to be put in, it is part of the builder's contract to pay those fees. The whole of this sentence is extremely awkward, in fact, the meaning of the clause is upon Quixotic lines. It would be very much better to let it stand as it was before.

MR. SIMPSON: My feeling is that we had much better omit the sentence altogether. It does not exist in the present Declaration, which is perfectly satisfactory. If Mr. White agrees, I would omit the entire sentence. It seems to be quite covered by the previous part of the Declaration.

MR. WHITE: I accept that, and move that the whole sentence be struck out.

The amendment was voted upon by show of hands and carried.

Forms A, B, and D as amended, and Form C as printed, were then each put separately, and agreed to.

THE CHAIRMAN: I have now to move "That the revised By-laws, as amended by the Special General Meeting of the 24th May, the 14th, the 23rd, and 28th June, and the present Meeting, be adopted: that the Council be authorised to take the necessary steps to obtain for the revised By-laws the approval of His Majesty's Privy Council, and that the existing By-laws be rescinded immediately such approval is signified."

The motion was put and carried.

THE CHAIRMAN: A Special General Meeting must be held to confirm this resolution. It is proposed to hold it on Thursday, 29th July, at 8 p.m., and notices will be issued to that effect.

MR. SIMPSON: Will it be open to anybody to move amendments again at that Special Meeting?

THE CHAIRMAN: No. The resolution just adopted by this Meeting must either be accepted or rejected.

The Meeting then terminated.

Confirmation of the Resolution adopting the Revised By-laws.

A Special General Meeting for the confirmation of the Resolution adopting the Revised By-laws was duly summoned for Thursday the 29th July at 8 o'clock. By law 60 prescribes that if within half an hour of the time appointed for such a meeting there be not twenty subscribing members present, of whom eleven must be Fellows, no meeting shall take place, and all notices relating thereto must be held to have lapsed. On the evening in question the President was in attendance to take the Chair as soon as a meeting was constituted, but up to half-past eight no more than fifteen members having assembled (thirteen Fellows and two Associates), the business could not be proceeded with and the meeting had to be abandoned.

Fresh notices were issued summoning a meeting for the same purpose to be held Tuesday the 10th August at 5 p.m. The meeting being duly constituted at the hour appointed, Mr. John Slater *F.R.S.* was voted to the Chair in the absence of the President and Vice-Presidents, and the Minutes of the previous meeting having been read and confirmed, the Resolution adopting the Revised By-laws was put to the Meeting and carried unanimously on a show of hands (see Minutes, p. 704).

School of Architecture, Birmingham.

Particulars are to hand of the Day School of Architecture which has been founded at the Municipal School of Art, Birmingham, and which is to open on the 13th September. The object of the school is to provide architectural students in the Midlands with a thorough training in all the branches of their profession, and to prepare them for the Examinations of the Royal Institute of British Architects. The school course will be spread over four or five years. It is intended that the first two years shall be spent at day classes, and that they shall take the place of the first two years of articulated pupilage. The last two or three years will be spent at evening classes, and will run concurrently with articulated pupilage. The fee for the Day School will be forty guineas per session; the fee for the Evening School ten guineas per session. The Committee have received an undertaking from a large number of architects in the Midlands promising to forgo the whole or a portion of the fee ordinarily received by them in the case of pupils who shall have attended the school.

The syllabus has been arranged as follows:—

First Year: Lectures on architectural history, building construction, elementary physics and geometry demonstrations, and practical work in stonemasonry, carpentry, and bricklaying; simple planning, elementary design (doors, roofs, windows, &c.); perspective; drawing and lettering. *Second Year:* Studies in ancient architecture, including measuring; practical work: lectures on the historic styles and on iron and steel construction, physics, &c.; design. *Third and Fourth Years:* Mainly design and advanced physics and kindred subjects.

The teaching staff is as follows:—*General Director*, Mr. J. L. Ball; *Assistant Director and Lecturer in Design*, Mr. E. F. Reynolds [*Scout Medallist*]; *Lecturer in History*, Mr. W. H. Bidlake, M.A. [A.] [*Institute Metallist and Pugin Student*]; *Lecturer in Physics, &c.*, Mr. F. B. Andrews [A.]; *Assistant*, Mr. John B. Surman [A.].

The Teaching of Craftsmanship.

The Council of the Association of Teachers in Technical Institutions have drawn up the subjoined resolutions embodying reforms which they consider urgently needed in the interests of English craftsmanship. These recommendations are the outcome of contributory Papers, discussions and enquiries, extending over a long period, among members of the London Arts and Crafts Section, who, besides being technical teachers, include employers, foremen, journeymen, and day trade school teachers.

1. *General*.—If the standard of English craftsmanship is to be maintained, it is imperative that boys should be trained in the principles and practice of the crafts. The London Artistic Trade and Craft Teachers therefore strongly urge (a) that national and local education authorities should provide this training; (b) that the establishment of day trade schools is the only satisfactory method of accomplishing this work. They further urge that boys trained to some craft have better opportunities of becoming good citizens than boys who are not trained. The interests of the employers, the craftsmen, and the crafts would be promoted by a constant supply of well-trained youths; the highly skilled craftsman meets with no opposition on account of his skill from either employer or fellow craftsman.

2. *Apprenticeship and the need for trade schools*.—(a) Apprenticeship in London in the artistic trades and crafts has almost ceased to exist, and where it does exist there is no guarantee that boys will be properly taught the trade at which they are working; (b) for reasons of economy masters generally train a "one-process" boy, and such training is held to satisfy their legal obligations; (c) the section is of opinion that parents, guardians, apprenticeship societies, &c., fail to appreciate these facts, and it is therefore most desirable that definite information from the trades concerned should be available for their use; (d) the training of boys under the present industrial conditions would be better carried on in day trade schools than in shops; (e) the trade schools would discover the boy's natural bent, and by directing it and giving the boy a definite purpose in life would prevent wastage; (f) the section is of opinion that time spent in the schools should count as part of apprenticeship, or be accepted in place of apprenticeship, the boy going into the craft as an "improver."

3. *Opportunities*.—Every parent should have the opportunity of providing a training at a day trade school for his children should he desire it. To accomplish this it is necessary (a) that there should be established an increased number of day trade schools; and (b) that there should be a generous provision of scholarships and free places in day trade schools.

4. *School curriculum*.—All the theoretical and practical principles of the craft should be taught in the schools as far as the age of the boy will allow; public money should not be spent in training a "one-process" boy.

5. *Teachers*.—It is strongly urged: (a) That all teachers in trade schools should have had workshop experience; (b) that the want of academic or technical certificates should not be a bar to the appointment of a good teacher; (c) that to maintain the supply of craftsmen teachers, to give opportunities for training in teaching, and to ensure efficient teaching, assistants should be appointed where classes are large; (d) that heads of trade schools and heads of departments should be men of reputation in some trade or profession other than the teaching profession.

6. *Committees of Management*.—The section strongly urges the desirability of appointing advisory committees (where such are not in existence) to each trade school, such committees to include representatives of employers and craftsmen.

7. *Evening trade classes*.—Evening trade classes have done, and are doing, valuable work, though often at the sacrifice of necessary recreation and sometimes of health. The section therefore urges the establishment of earlier evening classes for the younger boys pending the establishment on a large scale of day courses of instruction. At these classes there should be adequate provision in the way of scholarships and free places.

Town Planning Congress.

The Town Planning Congress which was held at Port Sunlight on 4th August, and at Southport on 5th August, under the auspices of the Housing Reform Council was attended by some 200 delegates, mostly Councillors and Surveyors deputed to represent their respective Councils. There were also present delegates from France, Germany, Italy, and Belgium, and some score of architects. Papers were read by Professor Adshead [F.] of the Liverpool School of Civic Design; Mr. Thomas H. Mawson [H.A.]; Professor Berlepsch Valendas, of Munich; Dr. Eberstadt, of Berlin; Mr. Jesse Horsfall [F.] of Manchester; M. Augustin Rey, Architect, of Paris; Mr. Raymond Unwin, and Mr. John H. Barlow, of the Bournville Village Trust.

The Chairman in his introductory remarks suggested that the proceedings should as far as possible be confined to the consideration of the Town Planning Bill now before Parliament. He urged that no town ought to think about preparing a town plan unless it had a much fuller collection of facts at its disposal than local authorities at present possessed, and the first thing a Town Council should do was to form a Town Planning Committee. This Committee should take stock of the growth of the town and ascertain what land on the outskirts was likely to be used in the future for building purposes." Professor Adshead also drew attention to

the need for sociological survey before proceeding to make the town plan, and in criticising the Bill referred specially to Clause 55, which enables the Local Government Board to make regulations which shall provide, according to the fifth schedule, restrictions, whenever circumstances so require, on the number of buildings which may be erected on each acre, and the height and character of these buildings. How this would be interpreted in practice remains to be seen, but the Professor hoped that the following points would be taken into consideration: "That in determining the 'character' of the buildings to go on to a certain site—whether the word 'character' be interpreted as class, meaning factory, public office, residence, or shop, or whether it be interpreted to refer only to effect—it be borne in mind by those whose duty it is to decide the point that the ways in which one building or class of buildings may be detrimental to others are not confined to a few practical considerations such as rights of light, lines of frontage, &c., or even to such considerations as would come under the head of public nuisances. All these may very easily and quickly bring about the ruin of a neighbourhood. But there are other classes of property which ought just as certainly to be ruled out on the ground of being objectionable in character—viz. buildings which are offensive to the sense of sight, such, for instance, as the interminable terrace of the speculating builder's design, and all buildings obviously designed as advertisements, and intruding either as irregular monstrosities in form, as vicious exhibitions of colour, or as vulgar expressions of other kinds. Let us hope that the word 'character' will cover all this."

Mr. Mawson, who read a paper on "Town and Country," advanced an argument in favour of a classical treatment in the laying-out of towns.

The Paper by Professor Dr. Eberstadt, of Berlin, was perhaps the most valuable of those submitted. It clearly showed the disconnection between town planning and housing reform. He preferred to designate the so called Town-planning Act of Germany "a building-line Act," and stated that the work that had already been done in this country in the way of housing reform was in advance of similar work in Germany. He advocated the pushing forward of main traffic streets as the best means of opening up building sites, inducing private owners to sell land and bring down its cost.

Mr. Raymond Unwin's Paper dealt with the need for reconstructing the present by-laws, and showed very forcibly the necessity for greater elasticity in the grading of roads.

At the conclusion of the Congress the following resolution was unanimously adopted: "This Congress approves the provision of a special Town Planning Advisory Committee for the purpose of carefully watching the framing of the methods of procedure and the administration of the Housing and Town Planning Bill when it has passed into law. It suggests that, in addition to representatives

of the National Housing Reform Council, each county, city, borough, and local council and society subscribing to the Council, or which has sent representatives to this Congress, should appoint a representative on the Committee. It also desires to ask the foreign delegates present to give the benefit of their experience and advice for the assistance of the proposed Committee. It further suggests that the Committee so formed should be requested to appoint sub-committees for dealing with the various details of organisation and procedure, and shall include a special Sub-Committee for Scotland."

The Whitgift Hospital, Croydon.

Over five years ago the then President of the Institute, Mr. John Belcher, R.A., and Mr. James S. Gibson [*F.*] represented the Institute on a deputation headed by Viscount Midleton which waited on the Croydon County Council to protest against the proposed demolition of Archbishop Whitgift's Hospital of the Holy Trinity. The excuse for the destruction of the building was that more accommodation was wanted for the local tramways; but it was pointed out that the requirement could be amply met in some other way, and as a result of the protest it was understood that the Streets Improvement Committee would consider the adoption of an alternative plan. The proposal, however, to remove the Hospital in order to increase the width of the road at this particular spot has been again revived, and is being strenuously opposed by the numerous admirers of this charming old building. The Hospital was founded in the year 1596, and has ever since been a source of benefit to the poor of the district. The buildings form a veritable treasury of art; hall, chapel, and dormitories possess a character of their own which once destroyed can never be replaced. With the exception of the old church, and the remains of the Archbishop's Palace, Croydon has scarcely anything left to remind it of the past. To demolish this ancient hospital will be to destroy the last link which binds the town to the times of the sixteenth century. The Council of the Institute some weeks ago addressed letters to the Archbishop of Canterbury, the Town Clerk of Croydon, the Clerk to the Governors of Whitgift Foundation, and the Vicar of Croydon, stating that they had considered the possibility of an alternative plan which would preserve the Hospital, and expressing the hope that the destruction of a building possessing such architectural and historical interest might yet be prevented by the joint influence of all those interested in its preservation.

Greek and Roman Casts at the British Museum.

The casts from Greek and Roman sculptures collected and presented by Mr. Walter Copland Perry, which have been housed for the last twenty-five years in the South Kensington Museum, have been removed to the British Museum, where they

occupy an iron room, 70 feet by 40 feet, specially built for their reception to the south of the Sculpture galleries. This change was suggested by the authorities of the University of London some years ago, and is altogether commendable. The casts are more centrally placed for the student, and, being in close proximity to the Elgin marbles and other antiquities of Greece and Rome, form an admirable supplement to them and are in more appropriate surroundings. The casts of the Column of Trajan still remain at Kensington, there being no room at Bloomsbury capable of holding them. Immediately to the right of the entrance of the new gallery are placed fragments from Cnossos of the early Cretan style, and near them the Mycenaean Gate of Lions. Next are ranged the archaic sculptures of historical Greece, and then the works of the prime of Greek sculpture, such as those of Myron and Polyclitus. At the end of the room furthest from the entrance are the sculptures of Olympia, the Victory of Paionios, and examples of fourth-century work such as the Hermes and Aphrodite of Praxiteles and the Niobe of Scopas. The Hellenistic, Rhodian, and Pergamene schools are represented; and the period of Imperial Rome furnishes a number of reliefs from the Arch of Trajan at Beneventum. We cut the following from *The Times*' description:—

The most conspicuous object at the entrance end of the room is a cast of the so-called sarcophagus of Alexander Severus, which is in the Capitoline Museum at Rome. According to a tradition which is first heard of in the sixteenth century, but which is now rather discredited, this magnificent sarcophagus was the original depository of the famous "Portland" vase. The "Portland" vase—so called in these later days from its having come into the hands of the Duke of Portland—has long been in the Museum. It is of glass, and, carving upon glass always having been difficult, it is of exceeding rarity. After it had survived, with its beautiful figures, 2,000 years, a visitor to the Museum, in February 1845, wantonly broke it to pieces. One has to be told of this incident in the long existence of the "Portland" vase, for it stands now apparently as intact as ever. It was because of its supposed association with the "Portland" vase that the sarcophagus was presented to the Museum sixty years ago by the late Mr. Windus.

Mr. Francis Bond [*H.A.*] has written a short guide for visitors to the monuments and cloisters of Westminster, extracted from the larger work on the Abbey to be published in September. The *Visitors' Guide* contains twelve plans, thirty-six reproductions from photographs, and other illustrations, and is published by Mr. Frowde at 1s. net.

Messrs. William Hodge & Co., Edinburgh and Glasgow, will shortly publish, at 10s. 6d. net, a work entitled *Construction, Equipment, and Management of a General Hospital*, by Donald J. Mackintosh, M.B., M.V.O., medical superintendent of the Western Infirmary, Glasgow, who has made a special study of the theory and practice of hospital construction and administration.

Obituary.

JOHN WORNHAM PENFOLD, who died at Sheringham on the 5th July, at the age of eighty, was elected Associate of the Institute in 1860 and Fellow in 1881. He had been a member of the Architectural Association sixty-one years, and served as President in 1859-60. He was a leading member and Past Vice-President of the Surveyors' Institution, and filled the office of Hon. Secretary of that body for thirty-six years; his portrait, painted by Mr. Jacob Hood, and presented to him by members on his resignation of the Hon. Secretaryship in 1904, was hung, by his request, in the Council-room of the Institution. He was a member of the Tribunal of Appeal appointed under the London Building Act, and, serving for eight years as its Chairman in succession to the late Mr. Arthur Cates, retired in June 1907. Since 1880 Mr. Penfold had been surveyor to the Goldsmiths' Company; he designed for them the Technical and Recreative Institute in the Old Royal Naval School, New Cross, in 1890-1, and acted in the rebuilding of the large area laid waste by the Cripple-gate fire of 1897. Mr. Penfold was a native of Haslemere, Surrey, and his services as an architect were largely requisitioned during the development of that neighbourhood into a populous district. It is understood that it was owing mainly to his good taste and skill that many of its old houses and cottages were adapted to modern requirements without losing their former picturesqueness. In 1870 Haslemere Parish Church was almost entirely rebuilt from his designs on the site of an earlier church, the old tower and west wall being incorporated with the new building. The Rectory and many of the chief residences in the neighbourhood were built from his designs, together with the Cottage Hospital, which he and his sisters presented to the town with a liberal endowment.

JOHN ARCHIBALD CAMPBELL, of 124 St. Vincent Street, Glasgow, *Tile Prizeman* 1885, *Fellow* elected 1906, died on the 19th July. Mr. Campbell was trained in the office of Messrs. John Burnet & Son, Glasgow (1877-80), and afterwards studied in the Atelier Pascal at Paris (1880-83). He started practice in 1886 in partnership with Mr. J. J. Burnet, A.R.S.A., and on the dissolution of the partnership in 1897 entered on independent practice. His principal works in Glasgow include Wellpark Brewery, the West George Street Property, Dundas House, the Edinburgh Life Offices, the Imperial Union Club, &c. He was the architect of the Ewing Gilmore Institute, Dumbarton, and the Cottage Convalescent Homes at Drymen; carried out extensive alterations and additions at Carrick House, Ayr; and was the author of the first premiated designs of the Falkirk and District Memorial to the Argyll and Sutherland Highlanders. As the result of a competition he was appointed architect of the Queen Victoria Schools and Memorial for Scottish Soldiers and Sailors at Dunblane. Mr. Campbell was awarded the first premium for his designs, out

of twenty-six sets submitted, for the International Exhibition, Edinburgh, 1908. He had recently taken into partnership Mr. A. D. Hislop, of Glasgow. The firm, practising under the style of Messrs. John A. Campbell and A. D. Hislop, were architects of the new buildings in St. Vincent Street for the Northern Assurance Company.

WILLIAM OWEN, of Duchy Chambers, Clarence Street, Manchester, *Associate* elected 1879, died on the 5th August, aged fifty-nine years. Mr. Owen was the architect of the cemetery chapel, &c., for the Altrincham Local Board, at Hale, for which his designs were chosen in a limited competition in 1893; for the enlargement and improvement of the Royal Victoria Station Hotel, Sheffield, 1901; of the Navigation Road Council Schools, Altrincham, built for the Cheshire County Council in 1905-6; the isolation hospital at Dunham Massey, for the Altrincham Urban District Council, his plans and designs having been accepted in a limited competition; and additions, embracing a new lecture-hall, five classrooms, vestries, &c., to the Baptist church in Hale Road, Altrincham.

MINUTES.

ADJOURNED SPECIAL GENERAL MEETING (BY-LAWS), 21st JULY.

At an Adjourned Special General Meeting for the consideration of the Draft By-laws, held Wednesday 21st July 1909, at 8.15 p.m.:—Present, Mr. John Slater *F.R.I.B.A.*, in the Chair; 33 Fellows (including 9 members of the Council) and 9 Associates—the Minutes of the Special General Meeting (By-laws) held 28th June [p. 664], were read and signed as correct.

The results were announced of the poll taken by voting-papers on the question of the adoption of the Resolution passed at the Meeting of the 14th June limiting the period of service of members of Council (see Secretaries' Report, JOURNAL, 24th July, p. 645), and the Chairman declared the Resolution duly adopted as follows:—"That one-sixth of the Ordinary Members and Associate Members of the Council shall retire each year, and shall not be eligible for re-election for two years, those retiring to be the seniors in service, and in the event of equality of seniority the rotation to be decided by lot."

The Meeting agreed that as the whole of the Council retired every year as a matter of course the words "shall retire each year and" were superfluous and should be struck out.

The Meeting further agreed, in view of the By-law to be framed embodying the above resolution, that the resolution respecting service of Members of the Council is not intended to operate in the case of those who are elected as Vice-Presidents or Hon. Secretary, such members at the expiration of their term of office being eligible for re-election as Members of Council.

The following amendments were made in By-law 44:—

Clause 1, line 3: substitute the word "approved" for "appointed," so as to read "Examiners approved by the Council."

Clause 2, line 4: substitute the word "student" for "pupil" and print such word throughout with a small "s" except where "Students R.I.B.A." are intended.

By-law 44 as amended was then put and carried.

On By-law 61, a proposal that a list of attendances of

the Board of Architectural Education be also submitted was negatively voted upon, and the by-law was passed as printed.

On By-law 65 clause 1, the period during which a demand for a poll may be served on was extended from seven to not more than ten days.

On the same by-law it was resolved to omit all reference to the question of scrutineers in the 5th clause, and to recast the sentence so that the words "their decision shall be final" should follow the words "shall then count the votes."

By-law 65 as amended was then put and carried.

On the motion of Declaration A, B, and D the Meeting resolved, on the motion of Mr. W. Henry White *F.R.I.B.A.*, seconded by Mr. John W. Simpson *F.R.I.B.A.*, to omit the following sentence from each form:—viz. "I promise that I will not have my name or any contract for any materials supplied to any works or work which may be engaged."

On the motion of Mr. H. H. Statham *F.R.I.B.A.*, seconded by Mr. Henry J. Hall *F.R.I.B.A.*, the Meeting resolved to omit the following sentence from each form, viz.: "This promise is not to preclude me from holding shares in any limited liability company supplying such materials, but in that case I undertake to inform my client in writing of the fact that I am interested in such company."

On the motion of Mr. Ernest Newton *F.R.I.B.A.*, seconded by Mr. John W. Simpson *F.R.I.B.A.*, the Meeting resolved to omit the following sentence from each form—viz. "I further promise that I will not take part in any competition the conditions of which have been disapproved by the Council."

The forms of Declaration A, B, and D as amended, and Form C were then respectively put from the Chair and carried.

Finally, on the motion of the Chairman, the Meeting

Resolved, That the Revised By-laws as amended by the Special General Meetings of the 24th May, the 14th, 23rd, and 28th June and the present Meeting, be adopted; that the Council be authorised to take the necessary steps to obtain for the Revised By-laws the approval of His Majesty's Privy Council, and that the existing By-laws be rescinded immediately such approval is signified.

The Chairman having announced that a Special General Meeting would be held in accordance with Clause 33 of the Charter on Thursday, 29th July, to confirm, or otherwise, the Resolution adopting the Revised By-laws, the proceedings closed and the Meeting separated at 10 p.m.

SPECIAL GENERAL MEETING (BY-LAWS) 10th AUGUST.

At a Special General Meeting, summoned in accordance with Clause 33 of the Charter, and held Tuesday, 10th August 1909, at 5 p.m.:—Present, Mr. John Slater *F.R.I.B.A.*, in the Chair; 28 Fellows (including 4 members of the Council) and 8 Associates (including 1 member of the Council);

The Minutes of the Adjourned Special General Meeting held Wednesday, 21st July, were read and signed as correct.

On the motion of the Chairman, seconded by Mr. Edwin T. Hall *F.R.I.B.A.*, it was

Resolved, unanimously, "That this Meeting, summoned in accordance with Clause 33 of the Charter, hereby confirms the Resolution passed at the Special General Meeting of the 21st July:—viz. That the Revised By-laws as amended by the Special General Meetings of the 24th May, 14th, 23rd, and 28th June, and 21st July, be adopted; that the Council be authorised to take the necessary steps to obtain for the Revised By-laws the approval of His Majesty's Privy Council, and that the existing By-laws be rescinded immediately such approval is signified."

The proceedings then closed, and the Meeting separated at 5.10 p.m.



THE INFLUENCE ON ARCHITECTURE OF MODERN METHODS OF CONSTRUCTION.

By HENRY H. HILL, B.A., R.I.B.A. Essay Medallist 1909.

[Essay, submitted under motto "Void," awarded the Institute Silver Medal and Twenty-five Guineas 1909.]

CONTEMPORARY criticism, and criticism of the recent past, can never claim exactly to estimate the permanent value of the events, or matters, with which it deals. Rather its function lies in trying to discover the tendencies of things, how far they succeed, or in what manner they fail, in reaching the ideal of their time. And in the present case, although to classify the many differences of expression in modern architecture would not be a difficult matter, for it might fairly be reviewed in kaleidoscopic fashion simply by taking a ride on the top of an omnibus from the Bank to the Marble Arch; yet to observe more than a multitude of buildings in a multitude of styles, to do more than arbitrarily assess their present artistic value, to perceive some common idea uniting them all beneath their differences, would require an unusual power of critical insight.

Like everything else that is modern, architecture has become a very complex affair, and is strikingly different, both in practice and principle, from what it was little more than a hundred years ago. That tidal wave of progress for which the nineteenth century is so remarkable, naturally was not without immediate effect upon the building arts. New conditions of planning arose necessitating emancipation from the limited notions of architectural composition then prevailing, and there was a demand for buildings to serve, like railway stations, new purposes hitherto undreamed of. Two important elements in the general movement, also, the romantic revival in literature, and the advancing science of engineering, had each a special influence. The former was mirrored in architecture in the Gothic revival, and in a measure, too, in the Greek revival; while to the latter was due the invention of the two new structural factors—iron and concrete. Altogether it may be taken that three influences came into play—utilitarian, æsthetic, and structural, as they may conveniently be termed. They, of course, overlap considerably, and it is often impossible to distinguish where one begins and another ends; yet, in the main, it is not difficult to observe the workings of the first two. It is easy to see, for instance, where purely modern requirements, such as those of the Board school, or the hospital, have brought about the evolution of a new type of building, with a distinctive expression of its own. A knowledge of the history of the art, too, makes it possible nearly always to recognise the source, or sources, from which the idea for the design of a building has been derived. But with the structural influences the case is different, since their operation is not so evident externally. The term is a wide one; for it may be taken to include, not only the employment of iron and concrete in construction, but also that of terra-cotta for facing, and of a multitude of patent methods and materials of all kinds; while even the organisation and conduct of building operations may come, though less directly, within its scope.

In the present essay, however, it is proposed only to investigate those methods of construction that directly influence architectural expression. And therefore devices such as "Mack" partitions, which are intended chiefly to meet the exigencies of building economics, will not here receive consideration. Even so important a custom as the use of terra-cotta must, since its end is in the main decorative rather than constructional, give place to those other innovations that more fundamentally affect structural principles and compel the serious attention of æsthetics—that is to say, to the employment of iron and concrete in building.

In this view of the subject there is little occasion to consider its history; how first of all cast-iron was used, then wrought-iron came in, after that steel, and now concrete and steel are often so intimately blended as to become one single material, ferro-concrete, or concrete-steel. Neither is it necessary to discuss the various systems in which these two materials are combined at the present time to form piers, girders, floors, and roofs: for the main principle, that of post and lintel, is always the same. Extremely slight and widely-spaced columns of iron, or ferro-concrete, can carry beams of similar composition supporting enormous loads. By these means feats of construction have been accomplished, beside which, regarded solely as such, the achievements of the French in their cathedrals of the thirteenth century are but clumsy makeshifts, and the possibilities of vaulting in concrete over great spaces are greater to-day than they were even in the time of the Roman Empire. How architecture has availed itself of these new forces, and in what added beauty it pays tribute to its new source of strength, are the questions that now require to be considered.

In Liverpool there is a great cathedral in course of erection, where the whole superstructure consists of brick and stone, built up in the traditional way, and no iron is used at all. While the erection of the *Morning Post* Offices was proceeding, one could watch a wonderful framework of steel gradually becoming woven together. Now, all this is hidden behind a beautiful granite building, which, to the casual eye, betokens in no way the facts of its construction. Facing down High Holborn, and standing out at right angles to the Holborn Empire, is a tailor's shop, and above it a grandiose edifice, which, to all outward appearance, is miraculously supported upon nothing. Here there can be no doubt but that modern methods have been employed: yet the architectural part of the design pays no heed to them, and seems to be all unconscious of the aching void beneath. Finally, there is Messrs. Mappin & Webb's new shop in Oxford Street, where architecture has departed altogether from its customary ways to pay, as it were, an extravagant compliment to its servant—steel.

These four examples, selected at random, present the anomaly of the case. There are many buildings, some of them of considerable importance, in which iron and concrete find no employment. There are others in which their use has occasioned no change in outward expression. Again, there are some in which the new construction is only too obvious, despite the strivings of their designers to hide it. And lastly, it occasionally happens that the structural lines are so clothed that they become the leading motive of the design.

To perceive the influence of the new construction it is by no means necessary, especially in a work aiming at any of the subtler architectonic qualities, actually to see either of its components. Both are without inherent beauty, and their æsthetic value lies only in what they can achieve. They have become the skeleton of architecture, and need to be clothed with more beautiful materials, if the power and beauty of their achievement are advantageously to be displayed. But the rightful use of iron in construction has always been a subject of hot contention. At one time the exposed column was anathema to the artistic, at another the concealed girder. In the days when cast-iron was the vogue, it was the custom to leave it uncovered, and to decorate it with architectural details borrowed wholesale from the various styles. Such a practice, it need hardly be said, betrayed a very primitive notion of art, and was quite incom-

patible with the highly developed artistic spirit of the nineteenth century in other directions. In this way iron gained for itself a bad name, and one which did not disappear when experience, and a variety of practical reasons, proved the advisability of encasing it, whenever possible. The purist school then, ignorant of the practical politics, clamoured that to cover up any construction, no matter how unsightly, was a sham and a lie. But this objection is not so loudly raised now as it was a few years ago. Perhaps it is beginning to be realised that there is a difference between the covering of construction and the hiding of it. An attached column of stone or marble, placed in front of an iron one, appears to do work that in reality it does not perform. Here the visible column, æsthetically the symbol for support, gives that idea exactly where the building is, in fact, supported; and therefore the proceeding may be justified. But when, on the other hand, the stone column stands in such a position that it does not, nor could not, bear the weight it appears to carry, while the necessary support is placed elsewhere, and perhaps receives no architectural acknowledgment, then there is æsthetic falsity, and no one can cavil at the purists for condemning it.

Modern methods of construction, whether for artistic reasons or for reasons of economy, or perhaps because of a spirit of conservatism on the part of the majority of architects, rarely find employment unless some practical consideration makes their use expedient. They do not appear in buildings the conditions of whose erection remain the same as they were a century ago, and rarely to an extent sufficient to influence the external design in edifices where architectural magnificence is one of the first essentials. Thus in churches, houses, and nearly all country work, the steel stanchion and concrete floor have no place; while in town halls, public buildings, and the offices of wealthy companies, though concrete floors are used, these of themselves have but little influence on outward design. On the other hand, in the various types of building existing for business purposes, where modern conditions are entirely different from those of the past, the full use of iron and concrete construction is necessitated by the following requirements:— (1) Abundance of light, (2) the maximum of unencumbered floor space, (3) great height, and (4) fire-resisting construction.

It will be observed that the necessity for light has been placed first, for, since that deals with the proportion of solids to voids, it is the prime factor in regulating the outward appearance of buildings, whose general form is predetermined, as is the case with commercial buildings, by their situation in a street. The great size, too, and depth of many apartments used for business purposes aggravate the need for big window areas, until they become so great, that in many large buildings—shops especially, where windows are required for display as well as light—walls can hardly be said to exist at all. They are, at all events, reduced to a minimum, and piers, existing solely for the support of the floors and roof, take their place.

The results of this kind of construction are most readily seen in factories and warehouses, where good light is required. The modern warehouse is no longer a great cliff of walling, pierced at intervals by rows of windows, but has become more often a criss-cross of vertical and horizontal lines, piers and curtain walls to floors, with sometimes the emphasis on the one, by making the former project, sometimes on the other, by keeping both in the same plane, and making the latter the wider of the two. This bold and direct expression of construction, however, often can only be attained by sacrificing the usual forms and niceties of architecture, and indeed a great many warehouses have no pretensions in this direction at all.

In hotels, flats, offices, and other town buildings, where appearance is deemed important, and the demand for great windows is not so exacting, a more liberal expanse of wall space, and one adorned with architectural features, may render the facts of the construction not so obvious as they are in factories and warehouses. Here it may sometimes be difficult to tell at a glance whether the fire-proof floors are carried on girders and stanchions, or whether they rest upon

the walls themselves. It depends, as a rule, upon the height of the building, upon the weight to be carried, and upon the demand for floor area. In a lofty building, for instance, on a confined and valuable site, where every square inch of ground has to be occupied profitably, iron stanchions must be used in order that the walls may be kept quite thin; while in a small building, where the weight is moderate, they are unnecessary, walls of the thickness imposed by the building regulations being sufficient, generally speaking, to bear the load. Although the design of the *Morning Post* Offices has in no way attempted to express the skeleton that gives rigidity to its form, a close observer can hardly help sensibility to the thinness of its walls, even without specially noticing their dimensions. In fact, it is almost impossible to embody iron, or reinforced concrete, in the walls of a building without some evidence of its use appearing externally. Either their abnormal thinness makes the work look a mere shell; or solidity is concentrated in the piers or columns, which, with or without the assistance of stanchions, carry the girders, while the spaces between are so treated that emphasis comes all on the voids, the solids appearing to act only as their decorative framework. Of the latter type there are now a great many instances, and Messrs. Dewar's building in the Haymarket may be mentioned as a recent and, on the whole, a successful addition to them. This kind of design, indeed, is peculiarly characteristic of the present time, and its development is of especial interest, seeing that it is the direct outcome of the new construction, and has revived a principle—that of the pier, as opposed to the wall—dead since the end of the Gothic period, in combination with a manner of architecture based chiefly upon the forms of the later Renaissance.

The constructive versatility of iron and concrete is, in some senses, its greatest misfortune. As the agent of what may be termed crude utility, modern construction, in the easy accomplishment of its end, often ignores and degrades architecture, reducing it to the ignoble function of decorating merely the portions of a building not required for any directly profitable purpose. The conditions of modern shopkeeping demand two incompatible things: the one, an imposing and attractive edifice, that may readily be distinguished from its neighbours, and so advertise the business carried on within; and the other, the absolute maximum of window space on the ground floor, and sometimes on the first floor as well. The latter is generally the more urgent requirement, and thanks to the aid of iron girders and columns, the majority of shops one sees nowadays are lofty and grandiose structures pendant upon shining acres of plate-glass. Such erections can never be successful pieces of architecture. Yet their failure must not be attributed to the properties of their construction. Rather it is due to the utilitarian demands, that, pushed to their utmost, are subversive of the most fundamental notion of architecture. The primary essential of building is stability, and it follows, surely, that the appearance of it is what one may first expect in architecture. The shop problem seems, indeed, to be an architectural enigma; and, though efforts are perpetually being made to solve it, no satisfactory type of general treatment, applicable on a large scale, has yet been found.

The commonest way of dealing with it, perhaps, is to give it up as hopeless, and try to find solace, as one can conceive the architect of the tailor's shop by the Holborn Empire to have done, in imagining the ground story. Another common, but less negative, attempt is seen in the placing of granite pilasters, or stone piers, in front of the iron supports, and making them as wide as circumstances will allow. But this is not a satisfactory system on a large scale; for, unless the piers be sufficient to satisfy the eye, they only aggravate the sense of insecurity instead of reducing it. No matter how massive the pier, too, it cannot, as is seen in Messrs. Waring & Gillow's, otherwise one of the finest of modern shops, compensate for an exceptionally long and heavily loaded lintel.

Occasionally it happens that, instead of piers, attached columns are used in front of the stanchions; and when these come sufficiently close together, the result may be quite satisfactory.

The column is the natural and traditional support of the beam. So it is that, area for area, a column looks stronger under an entablature than does a built-up pier, which belongs with more propriety to the arch. In this respect it is interesting to observe a new building that has recently been erected at the corner of Oxford Street and Great Chapel Street, and is now about to be occupied by the Hackney Furnishing Company. Here the ground floor is, as usual, a complete void, except for a few Doric columns attached in front of the stanchions. These, of themselves, are obviously insufficient to bear the weight of the building; yet it does not appear to lack support, except in the Oxford Street front (the narrower one), which fails because the columns are set apart considerably more than their own height, and the entablature seems to overpower them. Now the cause of success here appears to be two-fold: in the first place, because of the idea of support that is inseparable from a column, when at all rightly used; and, in the second place, because modern sensibilities, growing accustomed to the use of iron, are learning unconsciously to make allowances for it, and so the mind can conceive a notion of strength from a much less given mass than was necessary for this purpose in the past.

The method of arching over the ground floor void only succeeds when it is possible to use sufficiently large piers for abutment. And when this is the case, as in the arcade under the Piccadilly Hotel, the arches are, or at all events appear to be, strong enough to do their work, and so all evidence of the presence of ironwork behind disappears. In small shops, when a single arch spans the whole front, appearing to depend upon the neighbouring houses for support, the result is nearly always unsatisfactory, because the construction is untrue. The weakness of the arch at once arrests the eye, while the very nature of its form hinders the mind from realising the inevitable girder in the wall above.

The modern type of design, of which Messrs. Dewar's has been cited as an example, is sometimes applied to shops, with the intention that the wide voids will cause the upper part of the building to look light. And the idea is a good one, so far as it can be realised. But the requirements of the shopkeeper nearly always make it impossible to carry the piers up strongly from the ground; and when these, starting in mere coverings to the stanchions, become considerably increased at the first-floor level, they produce a far greater sense of crushing than would be caused by a plain and continuous wall. Messrs. Selfridge's is a new attempt in this direction in England, but, as it is still incomplete, one cannot yet judge of its general effect. It is, however, a steel-frame building of the most advanced type, whose uprights are expressed by a great colonnade (the largest in London, it is said) starting from the first-floor level, while the spaces between are left void, being filled in only by a decorative framework of metal, enclosing the windows, and screening the ends of the floors. Success or failure here will depend upon the treatment of the ground story; for, unless the supports under the great columns look strong enough to carry them, the eye may be more impressed by their ponderousness than by the lightness of the spaces between.*

One more shop must be mentioned in this connection, for it stands at present the *ne plus ultra* of light construction. The whole architectural endeavour of Messrs. Mappin & Webb's is to frame voids. It might be said, indeed, that it is not a building at all, but an erection — a decoration of architectural motives applied to a steel skeleton. Yet the result, in many ways, justifies the means; for, in spite of the too great slenderness of the columns that run through the ground story, the building, if that term be allowed, does appear somehow to "hold up." One may, or may not, like this very original fantasia upon Classic motives, so

* Now that this building is completed, it cannot be said that the pilasters of the ground story are wholly satisfactory. Their returns are cut off by the glass in a mean fashion not worthy of so important a building. Still they are sufficiently broad to cause the eye to infer the presence

of piers behind them substantial enough to carry the great columns above. And for this one must at least be thankful. The work presents a number of other points of interest; but, of course, any general criticism of its architecture would be beyond the province of this essay.

totally regardless of Classic form ; but here, at all events, is a work of some homogeneity. Here it is a relief not to witness that perpetual wearisome conflict between art and utility that has almost accomplished the divorce of architecture from construction—a calamity that would have a damaging effect on all the arts.

Shop architecture has been reviewed thus rapidly, because in it this struggle is seen in its most acute stage. The cry of the shopkeeper is all for large voids. By the modern means of steel and ferro-concrete they can be provided. But to make them beautiful and positive parts of buildings is a problem for architecture yet unsolved. To make them beautiful, however, is not necessarily to make them magnificent. And in this regard a question arises as to whether modern commercial work has not, on the one hand, often attempted a wrong standard of attainment, and, on the other, is not too often condemned for the absence of qualities it should never possess. To take some famous palace, or some historic building admired for its architecture, and adapt it, no matter how freely, to the present-day utilitarian and structural needs of a shop, or an hotel, is somewhat meretricious art, and tends to set up a false standard of comparison. Of course commercial buildings ought not to be without beauty, since the majority of mankind spends the greater part of its days amongst them ; but it does not seem reasonable to expect to find the grandeur, the power, and the eternity of the fine art of architecture in works of this nature. The prime function of a shop, or of a block of offices, or of a warehouse, is utility. They are there for the practical purpose of money-getting, and, though this is by no means incompatible with higher ideas, architecture can no more express the latter, when in the service of the former, than an architect can write the beautiful thoughts of a Ruskin in the pages of a building specification. All that can be asked of commercial architecture is fitness—fitness both of decoration and construction ; for this, though not itself one of the higher forms of beauty, at least makes for dignity and sobriety, qualities in art that are always invaluable.

It would be impossible at the present time to summarise the definite changes that the influence of modern construction has brought about in the ordering and disposing of architecture, for the great transitional period, that began nearly a century ago, is not yet over, and cannot yet be viewed in true perspective. Changes are still taking place, both in the idea of architectural beauty and in the means of its realisation. These do not develop in mutual conjunction, but, as in the other great transition from Romanesque to Gothic, individually and distinctly. The first experiments in Gothic carving were tried upon round-arched architecture : and in the early attempts at using the pointed arch the innovators were quite content to employ the older mouldings and details. In much the same way to-day there are the “artistic” architects, who, concerning themselves chiefly in the pursuit of beauty, prefer to use the older manner of building, because they are sure of their ability to handle it well ; and there are the business architects, who, in the endeavour to satisfy urgent practical needs, are compelled to throw the whole of their abilities on the side of constructional development, and take the decorative part of their work second-hand. In this manner the æsthetic idea and the constructive type suitable to the modern world are in course of formation. After a few more years’ growth apart one may hope to see their full development crystallised in their reunion, and expressed in a new style, that should be as great in its way as that of any similar period of concentrated effort.

That the new architecture will be one of slender piers and great vaults, enclosing enormous spaces, there is already some evidence ; but whether its artistic inspiration will come from the great vaults of the Romans, or the Byzantines, or from the elegant and slender piers of the Gothic cathedrals, or from some happy combination of the three, one cannot as yet accurately predict. There are, however, some signs pointing in the direction of Rome. Modern taste

undoubtedly leans towards Classic architecture. Modern social conditions are, in many respects, not dissimilar to those that prevailed in the Rome of the Empire. And, perhaps of more import than these, there are already in America buildings—notably two great railway stations, at New York and Washington respectively—where the great halls of the Roman baths have supplied a grand idea that has been realised by the aid of iron and concrete construction. The classic orders have a phoenix-like habit of returning to life, renewed in elegance, when almost forgotten in a desert of dulness, or flamboyance. They have become adapted to widely differing conditions again and again, and there is no reason to fear that they will hinder future progress, provided always they escape the meshes of pedantry. For a variety of reasons, structural ones principally, a great classic cathedral, built, say, a hundred years hence, should be as different from St. Paul's, now some two hundred years old, as that differed from the Pantheon that was standing in Rome fifteen hundred years before. And if the vitality of the elements of classic architecture was as great, if not greater in the days of Sir Christopher Wren than it was in the time of the Emperor Hadrian, there is little fear that modern iron and concrete architecture, even though it may not elect directly to make use of them, will sound their death knell.—Let those who shudder at the modern shop console themselves with this!

NOTES ON ARCHITECTURAL TRAINING.*

By WARREN P. LAIRD,

PROFESSOR OF ARCHITECTURE IN THE UNIVERSITY OF PENNSYLVANIA.

THE architectural profession in this country differs from others, notably those of law and medicine, in the degree to which the school has been essential to the whole fabric. So many generations have passed since the day of the self-constituted healer that we forget that the medical school was not always the only channel to legitimate practice, while even the lawyer now finds a systematic course of instruction virtually necessary to his preparation for practice.

But these callings have long been recognised as professions, whereas architecture has only within recent years been accorded that rank. Probably the span of a single generation will cover the time since even the more intelligent class of people regarded the architect as no more than a glorified artisan; but within that period there has taken place a development which is probably not rivalled in the history of any art or profession revived from a one-time greatness. An interesting and, I believe, significant fact in this connection is that the architectural school was born and has enjoyed its lusty growth within this same period. Undoubtedly each has stimulated and reacted upon the other, and it is unquestionable that the increasing strength and multiplication of the schools is due to the same impulse which underlies our marvellous professional advancement. It would be difficult, were it not unnecessary, to determine the debt which each owes to the other. But it is at least evident that

neither the profession nor the schools have yet arrived at any definite acceptance of a controlling policy, either for education on the one hand or of ideals and methods of practice on the other. It is therefore of less profit to consider what the relations have been between the school and the architect than to discuss what they should be, and to look forward to the time when each will be working in intelligent accord with the other.

What then should be the relation between the architect and the school? What should constitute the training of the architect? For this is the one concern of the school. To prepare the ground for an answer, we may state at the outset the accepted fact that the office, no less than the school, contributes to that training, each providing a part which the other either cannot give at all or give so well. The distinction between these very dissimilar parts is best understood when we contemplate the nature of this most exacting profession.

In ancient days the functions of the architect were relatively simple; indeed he often found it possible to be also a painter or sculptor, a poet or engineer—often several of these, and usually a scholar. But to-day building has become a process of extraordinary range and complexity. The purposes for which buildings are required are a hundred-fold more numerous, and the materials used in their construction, both in kind and quantity, are vastly more abundant. Appliances and methods have added enormously to the facility with which results may be obtained, and the whole atmosphere in which the architect now works has as small

* Read before the Philadelphia Chapter of the American Institute of Architects, March 1909.

resemblance to that of his ancient precursor as has our industrial age to that of the Revival of Learning. The difference is most sharply outlined when we realise that the architect's obligations to art have not, and never can be, lessened, while, on the other hand, he must be infinitely more a man of science and of affairs. His daily routine may involve any point in the range from pure art to applied science. He must have at once a mastery of design and a working knowledge of construction. He requires to occupy with sympathetic understanding the view-point of both mural painter and ventilating engineer; he must realise the nice adjustment between cost and earning capacity in his office building and between symbolism and ritual in his place of worship; he should know with equal certainty the exact point which requires, in a façade, the accent of sculpture and, in a foundation, special precaution against danger of settlement. There must be for him no mystery in the mechanism of elevators and dynamos or the structural qualities of a thousand-and-one materials and appliances. The historic past must be to him an open book, and the allied arts a familiar field.

In short, modern science employs an infinitude of agencies of diverse character, all of which must be known to the architect. And this is but secondary to his highest duty, that of so employing these agencies that, while his building shall be sound in construction and adapted to its practical purposes, it must be a thing of beauty, for the architect is, above all, a creative artist—an exemplar in its profoundest sense of that pregnant word "design." Thus, as a designer of buildings, he is responsible not alone for their construction or the methods by which they are brought into existence; for their convenience or adornment or surroundings; but for the completed whole. This is the aim of his labours, and his success is measured by its merit. If it be faulty in construction or inconvenient in arrangement, it is of course imperfect as a work of architecture, whatever its abstract beauty, and its author has, by so much, failed as an architect. But his failure is absolute if his work goes no farther than construction and utility, for, though perfect in these respects, if it lacks a just beauty, it is not even a work of architecture and the author has de-classed himself into the ranks of the engineer or builder.

Thus the architect does his work under the severest handicap. While his highest function is that of the artist, his most insistent duties are those of the engineer or business administrator. Under these conditions the practice of architecture has become one of the most complex and highly specialised of pursuits, followed under a pressure similar to that of business life, rather than in the atmosphere so necessary to artists in other fields.

Thus it comes that the office is no longer a place for student instruction; it affords no time for teaching. That which must be learnt is too diverse and too specialised for any one man to teach; that which must be taught by method rather than ac-

quired by experience demands the service of the trained instructor and of facilities and opportunities not afforded by the office. For this reason the architectural school has come to be an essential element in the upbuilding of the profession.

Now, what must the school provide that this highly organised profession demands in its practice is yet cannot itself offer? And what can the office best provide toward the architect's training? Unquestionably the school is the place for theory and the office for its applications; the school for imparting information and the office for experience in its use; the school for the arousing and developing of faculties and qualities for whose growth to maturity the office alone provides the proper atmosphere. Architecture, like other great human activities, is only the working out, consciously or unconsciously, of great underlying truths, and the function of the school is to inculcate these truths and demonstrate them so clearly that they may provide the prospective architect with the foundation for his future career; may give him a comprehensive knowledge and insight into reasons, a body of conviction, an aroused sense of the beautiful, a stimulated imagination. Together with this there must be such attendant discipline as will serve both to demonstrate these truths and to develop his capacity to understand and use them. Thus equipped, the student's powers should steadily develop when brought into contact with the practical realities of office work.

Therefore the training of the school should be made complementary to that of the office, so that one shall fit into the other. It would be less difficult to provide training which would more or less duplicate that of the office instead of supplementing it. But if the purpose of the school were exclusively to fit its students to be of instant use in the office—to be capable only as draughtsmen, then the school has no reason for existence, for each office could serve itself better by doing its own training. On the contrary, the highest debt which the school owes to the student is to train him for his ultimate destiny—that of a practising architect. This can best be done by holding to that ideal which demands that the architect be both a man of education and an artist with sound knowledge of the materials of his art.

First: Education is a fundamental necessity to the architect because the field in which he works is quite as truly intellectual as is that of any other profession. Its operations call for a well-trained mind, no less than for imagination, taste, and judgment; they concern the greatest of the human arts and come into responsible contact with highly organised human activity in many of its phases. Nothing that the architect is called upon to do lies outside of the mental scope of the well-educated man. On the contrary, the more cultured his mind the nobler will be the work of the architect.

Second: That the architect should be an artist requires no assertion and no defence if this work be understood in its true significance. The world does not realise and we too often forget that the archi-

tect stands pre-eminent in the field of art because he is at once the chief artist among craftsmen and the master craftsman among artists. His work has always been distinctive because it is at once the noblest embodiment of pure art and the most essential of the useful arts. His field is unique as the meeting place of human activities elsewhere as far apart as the poles, for in him must be combined the functions of artist and engineer, of dreamer and executive. For this reason the well-organised school devotes its chief attention to training in design, to the development in the student of the creative faculty, of perception and imagination, of the appreciation of beauty in line, colour, and form, and of acquaintance with the masterpieces of architecture. These influences are exerted along many lines of study and constantly attended and reinforced by the discipline of design, through which he is learning the great underlying principles of his art and acquiring facility in their practice.

Attending this work there must be a careful study of the scientific laws underlying sound building construction, as regards both native material and its behaviour under stress. This work is theoretical, but it must be thorough, for upon it rests the intelligent understanding of many things

vitaly essential to sound building. Also the student must be given such information on practice in building construction as will enable him to take up office work in it, not as a stranger, but with preparedness to put to intelligent use the training he has brought from the school.

This outline of certain technical aspects of the architect's training, although roughly sketched, may suggest the reason for its advancing ideals and the insistence of the schools upon a scheme of teaching which shall make of the architect an educated artist. The architectural schools of the country have arranged and are steadily improving their systems of instruction under a deep sense of responsibility and an open vision toward the future. The relation between the school and the architect is intimate and vital, and the former will grow in usefulness and strength as the latter fosters that relation. One of the most encouraging signs of the times has been the recent activity of the Institute in matters of education. To be fruitful, this must be fully co-operative, and it is of primary importance that the very active and able spirit of inquiry which has thus far characterised the work of the Committee on Education be enlarged into an effective working organisation of which the schools will form an integral part.

PAPERS COLLECTED BY THE R.I.B.A. TOWN-PLANNING COMMITTEE.

No. IV.—THE IMPROVEMENT OF SYDNEY.

The following notes by Mr. John Sulman [F.] embodying proposals for Sydney, N.S.W., include several suggestions that will be of interest to students of town planning :—

Sydney possesses one characteristic in common with New York, and that is the limitation of the business area. Indeed, in this respect, New York is not so constricted as Sydney, for there is no serious block to its extension northwards into residential quarters, such as the Railway Station, the rise of Surry Hills, and the depression at the head of Darling Harbour, present in our case. Hence as the city grows the business quarter will become more and more congested, and tall, many-storied buildings will become the rule. It is to be hoped that a drastic regulation will be framed and enforced, limiting the height of buildings to, say, 100 feet, or as an extreme limit to $1\frac{1}{2}$ times the width of the streets. We do not want to see American skyscrapers repeated in our midst, or to reap the harvest of disease they must inevitably produce when the streets are filled with them. But even within the limit suggested the city population will be increased at least five-fold, and tram and road traffic will keep pace therewith. The traffic of the main streets, even as it is, requires careful regulation to make them serve present needs, and in the future we are anticipating they would prove quite inadequate. Their widening, sooner or later, will be absolutely

necessary, and the sooner it is effected the less will be the cost. To set back all the frontages, and pull down and re-erect the buildings, would, however, be a task so colossal that it may at once be put aside as impracticable. What we do must be within our means, and should be spread over a number of years, so as to render the cost comparatively light. Otherwise public support would not be forthcoming. I venture to think this may be done.

By a comparatively slight alteration and the loss of ten feet *on the ground floor only*, the whole object aimed at could be attained. Shops of considerable depth could afford twelve or fifteen feet being taken from them without spoiling them altogether. The space would, of course, be a serious loss, and adequate compensation would have to be paid; but it would be far less than if a slice off the whole height of the front were removed. The verandahs and shop fronts would be removed, the latter re-fixed at the new frontage line, and a new pavement formed at a minimum of expense for structural alterations. The party-walls across the footpaths would, of course, be cut away, and this would render it desirable to insert new columns to carry the superincumbent front wall above. If these were of good and uniform design a dignified effect would be produced. Difficulties would arise in connection with the different heights of ground floors, but they are not insuperable and have been overcome elsewhere,

as those who know Bologna in Italy can bear witness.

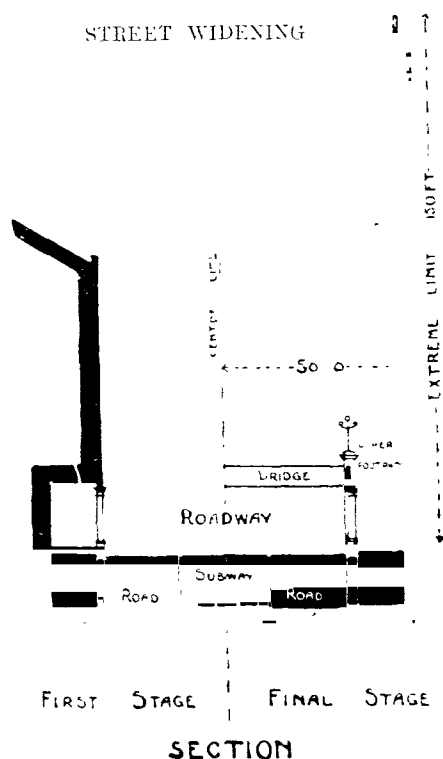
AN UPPER FOOTWAY AND BRIDGES.

At a comparatively small cost, therefore, the roadway could be made over sixty feet in width, broad sheltered footpaths secured, with more ample light to the shop fronts behind than they at present enjoy under the limited height of verandahs; but the possibility of obtaining direct light into the shops over the verandah roof, as in some of the newer and more lofty examples, would have to be forgone. That, however, is a very minor matter compared with the great improvement effected. The City Council should also have the power to realign frontages, so that when any owner of a property fronting a street,

the frontage line, the street arcade would be left standing as a permanent architectural feature with a solid flat roof, thus suggesting the possibility of a footway at the first-floor level, and the consequent opportunity of a second range of shop fronts or show rooms or offices, with most of the advantages of the ground floor and some others added, such as better light, more quiet space, and no necessity to "move on" on the part of those using it. Indeed, if wide enough, the Parisian habit of outside tables to cafes, *ac.*, with plants in tubs, and a roof garden might be indulged in, but with the advantage of being slightly raised above the traffic of the street. Raised footways such as these would mean bridges at the street corners (with staircases of access), which would add to the picturesqueness of the streets, at present somewhat wanting in lines contrasting with the longitudinal and vertical ones now predominant. Such first-floor footways have, I know, been proposed in New York.

STREET CORNERS.

The intersections of busy streets are already the seat of much congestion of traffic and consequent delay, and are only kept in order by the constant attention of the police. With increased traffic, even if streets are widened, they will need some further enlargement. The present crude method is simply to round off a corner. From a practical point of view this leaves much to be desired, for, at the most valuable part of a street frontage, carriage or cab cannot stop to set down or take up passengers, and the delivery of goods is out of the question. Architecturally also, the rounded corner is the most ineffective that could be devised, as a mere glance at those already in existence will convince the most sceptical. A far better form, both practically and artistically, is a hollow forming part of a circle or oval, or, if straight lines are preferred, an octagon or a square. Trams and vehicular traffic would have ample space to negotiate the turn, and still leave space for waiting vehicles at the kerbstone. The enlarged area would also permit of the employment of the up-to-date gyratory regulation of all traffic, by which crossing and stopping the varied streams of vehicles is entirely obviated, and motion would be continuous. These enlarged intersections would also permit of islands in the centre, which could be utilised in a practical fashion for the standards of powerful street-lamps, for sunk sanitary convenience, or, where subways or railways run underneath, for spacious ventilating openings or stations. When not required for such works of utility, they would afford good opportunities for small street gardens, with possibly one or two seats, and for drinking fountains or *jets d'eau*, when our water supply is ample. If Australia should develop a worthy school of sculpture, even groups of statuary commemorating the events of our history might here find a place for the beautifying of the city, the enjoyment of the people, and the education of the young to a proper pride in our achievements.



widened as suggested, wished to rebuild, he would have to set back the upper stories to the new frontage line, and, of course, be compensated for so doing. As rebuilding would be gradual, the outlay for compensation would be spread over a number of years, and hence not onerous. Probably within fifty years the buildings in the whole of the streets so treated would be re-erected and set back to the new frontage, and if any were left the cost would not be great to bring these into line with the rest. It would also be well to secure, in any case of re-erection, adhesion to a general average level of floor lines, and possibly conformity to some general scheme of architectural treatment. For many years past this has been done in Paris with excellent effect. As a result of rebuilding and setting back

SUBWAYS.

The mention of ventilators to subways reminds me that, as an upper-story footpath will be a feature of the future, so a lower-story street will in many cases be equally desirable. In the first place they will no doubt be required for railways, and a quick service of long-distance trams; and in making them there is no reason why cart roads should not be

provided as well, so that all goods traffic to the buildings above might be carried on therefrom at all hours of the day. In addition, provision would be made in these underground streets for easy access to the sewers, water and gas pipes, electric light and power, telegraph and telephone cables, &c., and thus rid the streets of the overhead wires which are such an eyesore and even danger, and obviate their frequent tearing up for access to pipes.

AMIENS CATHEDRAL AND MR. BILSON'S REJOINDER.

By WM. H. GOODYEAR, M.A.,

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IT may be a trite observation that the object of controversy should be the discovery of the truth, rather than the humiliation of an opponent. I shall hope, however, to bear this in mind in considering the opening sentences of Mr. Bilson's Rejoinder.* In his original "Criticism"† his general topic was explicitly stated to be the teaching of the Edinburgh Exhibition of Architectural Refinements,‡ and his general thesis was explicitly stated to be that these refinements existed only in my imagination. After my reply appeared in this JOURNAL (9 Nov. 1907), showing, for instance, that about one-third of all the buildings illustrated at Edinburgh were examples of perspective illusions, Mr. Bilson hastens to say: "I have expressed no opinion whatever with regard to perspective illusions."

My only object in calling attention to this palpable inconsistency is to point out that, although Mr. Bilson's wholesale strictures on the teaching of the Edinburgh Exhibition are now revoked, the method of retraction is so indirect and vague as to call for a word of comment on my part. For instance, after it appeared from my Reply that only eighteen out of sixty-one buildings illustrated by the Edinburgh Exhibition represented phenomena like those at Amiens, Mr. Bilson says: "It is scarcely necessary for me to point out that my criticism was not in the least intended to cover everything that Mr. Goodyear has ever written"—thus implying in one and the same sentence that many of the publications cited in my Reply had no reference to the Edinburgh exhibits, and also implying that I have never published anything aside from the ones cited.

Mr. Bilson's suggestion that my published studies have been confined to architectural refinements is parried by the citation of several books from my pen, on the history of art, which appears on the title-page of the Edinburgh Cata-

logue, and this title-page Mr. Bilson may be presumed to have read. But the more subtle suggestion that my Reply travelled outside of Mr. Bilson's ground of attack calls for prompt denial on my part. The Edinburgh Exhibition was a condensed choice from Brooklyn Museum exhibits of architectural refinements, including about 278 numbers, and covering 550 linear feet of hanging space with cartoons of survey and survey photographs. Mr. Bilson's original attack made no qualifications and no concessions regarding the architectural refinements specified by the Edinburgh Catalogue. They were all covered by his preface, by his conclusion, and also by the quotation marks of his title, according to his own express statements. Now, however, in rejoinder to my Reply, he says: "It is scarcely necessary for me to point out that my criticism was not in the least intended to cover everything that Mr. Goodyear has ever written."

My answer is that no publications were cited by my Reply which did not directly relate to the Edinburgh exhibits, and that no observation of an architectural refinement was cited in my Reply which was not included in the subject-matter of these exhibits.

Thus the method of Mr. Bilson's retraction shows that his talent for confusing an issue is phenomenal, as further illustrated by his remarks on the entasis in free-standing mediæval columns. When this critic ridiculed my "supposed discoveries" it was not because they were asserted to duplicate observations previously made, but because the observations themselves were asserted to be purely imaginary. Hence I pointed out in my Reply that many of these "supposed discoveries" were parallel with the work of other scholars who were not criticised by Mr. Bilson. I pointed out that the entasis in free-standing mediæval columns was one of those "supposed discoveries" which had subsequently been independently announced by a French scholar of distinction. Mr. Bilson now himself adds the

* JOURNAL R.I.B.A., 7th December 1907.

† *Ibid.*, June 1906.

‡ Opened by the Edinburgh Architectural Association in the Scottish National Portrait Gallery, 6th September 1905, closed 11th November.

* I very much regret that this denial has not been prompt, but the pressure of Museum routine duties has made it wholly impossible for me to make earlier answer.

names of other scholars as having made similar announcements, without reflecting that his title of "Mr. Goodyear's 'Refinements'" ignores every such instance of parallel work.

It is a pleasure to turn from these disagreeable reflections to that phase of the controversy which concerns the widening refinement in the Cathedral of Amiens, and especially so because Mr. Bilson's "willing acceptance" of the measurements published in my Reply¹ offers a common ground of departure in debate if not of conclusion in results.

The wider acquaintance of experts with the new series of photographic exhibits which furnished not only the measurements for the Amiens nave but also many other new measurements for Amiens, as well as for other French Gothic churches, may effect a startling revolution in our modern studies of Cathedral architecture. Such a revolution can only be inaugurated by controversy, and such a controversy is creditable to the parties engaged in it on either side, provided it be conducted in a spirit of fairness and of good temper. The weighty authority and distinction of some of the experts who have discredited the existence of a mediæval widening refinement is notorious.² Their opposition is, in my opinion, a tribute to the novelty and revolutionary significance of the discovery.

It has been, however, my fortune to procure recently such remarkable evidence for the wide diffusion of this refinement, that not a single expert who has examined the original exhibits has so far questioned their importance. Some of these experts are in Paris, some are in London, some are in the United States, and some are, or have been, officially in charge of debated buildings. I have already mentioned in my previous Reply the favourable opinions of the *Inspecteurs des Travaux* at Amiens³ and Rheims, and of the architect recently in charge of St. Loup at Chalons. Were a less serious and less revolutionary series of observations in question the verdict of these architects would alone be sufficient to settle the controversy. M. Margotin's certificate for Rheims merits Mr. Bilson's serious considera-

tion, whereas he has not even given it a passing notice. The new evidence has also already evoked corroborative observations. Professor Reginald Blomfield allows me to mention St. Pierre at Saumur as offering, in his opinion, an instance of constructive widening, and he was led to this observation by an inspection of the photographs when shown in London.⁴ Mr. G. A. T. Middleton's publication of St. Mary's at Dover⁵ was first prompted by his inspection of the new exhibits. M. L. Cloquet, Professor of Architecture in the University of Ghent, and Editor of the *Revue de l'Art Chrétien*, publishes the church at Mouzon (Ardennes) as an instance of constructive widening, and was thereto prompted by the new evidence from Rheims.⁶

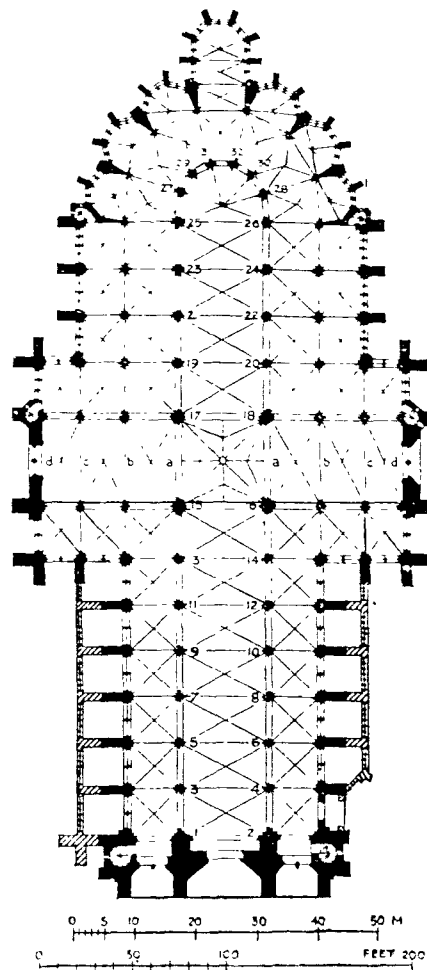


FIG. 1.—PLAN OF AMIENS CATHEDRAL, WITH M. DEBAND'S NUMBERING OF THE LINES.

¹ Personal letter of 19th January 1908, giving kind permission to publish.

² *JOURNAL R.I.B.A.*, 25th January 1908.

³ *Revue de l'Art Chrétien*, July 1908, page 225, under "Raffinement-architecturaux." Mr. Arthur Hill, F.R.I.B.A., of Cork, had previously published St. John's at Chester as having the constructive widening (*Architect*, Oct. 21, 1904).

¹ Page 85 of his *Rejoinder*: "Mr. Goodyear's latest observations, which I willingly accept as correct." This is a much valued tribute to the new photographic enlargements from which the accepted measurements were obtained, and especially so, because Mr. Bilson has not examined the original exhibits.

² The term "widening refinement" is used in these platatory remarks because it includes under one term the instances of widening in straight lines from the pavement up, the instances of widening in straight lines which begin to diverge at the capitals of the piers, and the instances which widen in vertical curves.

³ Although Mr. Bilson has called in question (page 85 of the *Rejoinder*) my account of M. Favry's opinion, I shall refuse to credit his suggestion that my account is incorrect. M. Favry spent an hour and a half in examining the new Amiens enlargements. His verdict as to constructive intention in the Amiens widening was specific, unqualified, and highly enthusiastic throughout that interview. This opinion was not drawn out by questions, or elicited as the result of debate. It was freely, spontaneously, and enthusiastically offered.

I.

Since my measurements for the Amiens nave have been accepted by Mr. Bilson, it is necessary to rehearse them, as published in my first Reply, in order that our present points of agreement and of disagreement may be made to appear. *The explanatory footnotes*, and some other explanations, are also necessarily reprinted, including the preliminary explanation which precedes the table and which follows here:—

This table of measurements for the vertical divergences of the nave and crossing piers is supported by thirty-eight exhibits. In my own numbering of piers I have continued the methods used in my photographic notes, but the numbers of the Durand plan are also supplied, as found in fig. 1. My own numbering enumerates the piers in order from the crossing, not included, as far as the organ gallery, and the tower piers at the entrance, which are also not included, as having no divergence.

RECESSIONS IN THE PIERS OF THE AMIENS NAVE AND CROSSING (IN INCHES).

All recessions, except at the crossing, are in straight lines, and all begin at the capitals, or, in the case of the crossing piers, at the corresponding height.

NORTH.	SOUTH.
<i>East Crossing</i> (17).*	<i>East Crossing</i> (18).
Recession. 5; bulge. $1\frac{1}{4}$ †	Recession. 5; bulge. 3.
<i>West Crossing</i> (15).	<i>West Crossing</i> (16).
Recession. 5; bulge, less than 1 inch.	Recession. 5; bulge doubtful, if any.‡
<i>First Pier</i> (13).	<i>First Pier</i> (14).
Shaft recession. 7; pier perpendicular.	Shaft recession. 5; pier perpendicular.
<i>Second Pier</i> (11).	<i>Second Pier</i> (12).
Shaft recession. $8\frac{1}{2}$; pier perpendicular.	Shaft recession. $6\frac{1}{4}$; pier perpendicular.
<i>Third Pier</i> (9).	<i>Third Pier</i> (10).
Shaft recession. $8\frac{1}{2}$; pier perpendicular.	Shaft recession. 7-6; pier leans in. $1\frac{3}{4}$.
<i>Fourth Pier</i> (7).	<i>Fourth Pier</i> (8).
Shaft recession. $9\frac{1}{2}$; pier perpendicular.	Shaft recession. $5\frac{1}{4}$ - $6\frac{1}{2}$; pier leans in. 1.
<i>Fifth Pier</i> (5).	<i>Fifth Pier</i> (6).
Shaft recession. 12- $11\frac{1}{2}$; pier perpendicular.	Shaft recession. $7\frac{1}{2}$ - $6\frac{1}{2}$; pier leans in. $1\frac{1}{4}$.
<i>Sixth Pier</i> (3).	<i>Sixth Pier</i> (4).
Shaft recession. $7\frac{1}{2}$; pier perpendicular.	Shaft recession. $6\frac{1}{2}$; pier leans in. $1\frac{1}{4}$.

Double estimates, offering slight variations, are given for the third, fourth, and fifth piers on each side (Durand plan 9, 10; 7, 8; 5, 6). The right-hand measurements in these cases are from photographic surveys, with plumb-

* These numbers relate to M. Duand's plan, as reproduced in fig. 1.

† The recessions are figured without including the bulges; in other words, they are figured from the base to the capital at the vaulting ribs. This method differs from that of the Cathedral office drawings. On that method the recession would be $6\frac{1}{4}$ inches for the north-east crossing pier and 8 inches for the south-east crossing pier.

‡ The Cathedral office drawing gives 0.015 m. bulge, or less than $\frac{1}{2}$ inch. If a bulge exists, it is certainly not more. My own observation shows a slight builder's error in some of the masonry courses rather than a bulge. The photographic detail enlargement will enable each student who examines it to form his own conclusions. M. Choisy's impression of this enlargement coincides with my own.

lines reaching, in the photograph, from the base to the capital of the shaft at the vaulting, and with a surveyor's disc on the plane of the given pier at its exact centre. The left-hand measurements for the same piers are figured on a wholly different method, which was also applied to all the piers for which single measurements are quoted, except the crossing piers—i.e. by combining the measurement furnished by a specially enlarged photographic detail of a plumb with disc measurement from the triforium string to the capital of the pier (where the outward slant begins) with another estimate for the triforium and the clerestory based on actual plumbs inside the triforium.

It appears from the reprinted table and footnotes that Mr. Bilson and I are agreed in estimating the recessions of the crossing piers at 5 inches for each pier, excluding the bulges and estimating the recessions from base to capital. In view of his "willing acceptance" of these recent observations it is somewhat ungracious of Mr. Bilson, and if not ungracious it certainly does not square with the facts, to assert that my Reply does not treat the bulges of the crossing piers as accidental. Half a column of the Rejoinder (pp. 86, 87) is based on this very mistaken assumption, and its analysis of my argument for Amiens starts from this point. It is, however, expressly stated in the republished footnote that "the recessions are figured without including the bulges."

This leads to my first point in reply to the Rejoinder, and relating to its fig. 8, viz. the inquiry what has the fissure, shown also by fig. 2 of this Paper and related by Mr. Bilson to a bulge below the triforium, to do with a widening above the arcade capitals, *provided the bulge be not figured in the widening estimate*? Fig. 3 shows, for instance, for the south-west crossing pier that the widening begins below the triforium, at the height of the arcade capitals, and wholly independent of bulge, which is figured by the Cathedral office drawing at the level of the arcade capitals, and as being there only $\frac{1}{2}$ of an inch (0.015 m.), while my recent observations, now accepted by Mr. Bilson, indicate that this bulge does not exist at all.*

Much as has been said by Mr. Bilson about the iron cable, and Pierre Tarisel, and the fissures and cracks in the transepts, it is all dust thrown in the eyes of the public; for what is the upshot of all this output of illustration, of reiterated argument, and elaborate citation about the buckling of the crossing piers, which consumes two entire pages of Mr. Bilson's original criticism, which he says I have made no attempt to answer, and which he now supplements by the first illustration of his Rejoinder, with half a column of related argument. If the worst face be put on the matter, there is only $\frac{1}{2}$ of an inch buckling at the south-west crossing pier, and my own observation calls in question the existence of any bulge whatever in that pier. This observation is based on a special series of detailed enlargements (from pavement to triforium), made for the given purpose, from which

* See footnote to the measure for recession of the south-west crossing pier, as just quoted in this Paper.

the bulges are measured, as shown by the table. It must be that Mr. Bilson "willingly" accepts this recent observation, for it is explicitly included with my measurements for the nave. I do not even insist on this acceptance; what is the use of quarrelling about $\frac{1}{2}$ of an inch? As for the south-east crossing pier, it is an absurd phase of Mr. Bilson's side of the controversy that he has related the fissure published in his Rejoinder to a buckling which does not exist at all, if we are to credit the drawing which he published in his Criticism.* Another absurdity is that the Rejoinder fig. 8 illustrates that side of the transept which shows the maximum fissure and the maximum bulge, whereas the most elementary and obvious rules of fairness demand that we consider the crossing pier and the corresponding side of the transept *where the buckling has been least*.

For if the accidental buckling below has anything to do with the recession above, then we naturally look to the pier where the buckling has been least, in order to inquire how much the original recession above has been increased by buckling below; and when we examine the south-west pier we find that the buckling has been nothing at all, or only $\frac{1}{2}$ of an inch, according to Mr. Bilson's own original contention. On the other hand, if the buckling below has nothing to do with the recession above, what is the use of talking about it? It was not included in the accepted estimates for recession, and Mr. Bilson, who relied on the office drawings, did not know that there was any northward buckling in the south-east pier when he published his Criticism. It was I who first drew attention to it in my Reply.

Thus, I now quote two illustrations, showing cable plumb-lines—one for the south-east crossing pier [fig. 2] and one for the south-west crossing

pier [fig. 3]. Fig. 2, of the south-east crossing pier, may be compared with the Rejoinder fig. 8, as showing how the careless levelling or incorrect trim of Mr. Bilson's photograph has entirely obliterated the recession of the south-east pier, the pier being made to appear perpendicular, while the inclinations of the choir piers of the north side are exaggerated and distorted.

Fig. 3, now twice quoted, shows the south-west crossing pier, with cable plumb-line, and enables me to appeal to obvious fairness and to obvious common sense. If fissures are to be quoted as signs of movement in a church, the smallest fissure and the least movement (relating to one and the same cause) enable us best to determine the true amount of intentional deflection or of deflection due to a different cause. Thus, if Mr. Bilson "willingly accepts" 5 inches as the amount of recession in the south-east crossing pier, it would wonderfully accelerate the conviction of rapid readers as to my general contention, if he would refrain from publishing a cut which represents it as perpendicular, and if he would refrain from publishing alarmist pictures of fissures related to a bulge of 3 inches which has nothing to do with the case, provided that case be agreed upon as 5 inches recession, *without including the bulge*.

The most special point of the matter has, however, still to be considered. If an undoubted buckling has occurred, as in the south-east crossing pier, then it follows, although the estimate for the widening from base to cap is not affected, that our ability to determine where the inclination originally began, is affected. For the bulge which increases the backward inclination also carries its beginning higher up, obliterating our perception as to how low the inclination may have been before the bulge came in play. Therefore, instead of laying alarmist stress on the fissures in Rejoinder fig. 8, also apparent in fig. 2, we should consider that the corresponding fissure in fig. 3 is only responsible for $\frac{1}{2}$ -in. bulge, or none at all.

That the backward recession begins below the triforium and at the height of the arcade capitals, in the crossing piers as well as in the piers of the nave, is what the original of fig. 3 was taken to show. Now comes the point which not a single engineering expert, who has examined the original enlargement, has contested. A vaulting thrust from the high altitude of the crossing meets, below the triforium, the resistance of the walls and of the thrust of the transept arcades, just as it meets the resistance of the triforium wall and clerestory wall above the triforium; but this resistance below the triforium is impregnable to an action from so great a distance and so great a height, when operating in so delicate a line of inclination. We should have to assume that the solid arcade masonry, between the triforium and the level at the base of the photograph in fig. 3, had the consistency and elasticity of soft india-rubber, if thrust from the high vault had produced the backward inclination

* Measured by me at 3 inches, and omitted by the Cathedral office drawing. Mr. Bilson's rather vague acquaintance with the recent observations which he has willingly accepted as correct is remarkably illustrated by his attempted defence of the Cathedral office drawing which made this omission. The Rejoinder admits (p. 85) that a northward bulge (photographically measured at 3 inches; see table) exists in the south-eastern crossing pier, and that this bulge is not entered on the corresponding drawing; but it suggests that the "lower part" of this pier "was not actually plumbed." Mr. Bilson also says (p. 85): "According to this drawing the greatest divergence on the northern face of the south-eastern crossing pier is 5 inches, and Mr. Goodyear now admits this to be correct." Quite the contrary; I do not at all admit this to be correct, and a moment's reflection on Mr. Bilson's part would have prevented him from making such a statement. The "greatest divergence" is, of course, 8 inches; for the Cathedral office drawings figure from the most advanced faces of the piers, including bulges, whereas my measure of 5 inches is figured from the bases, excluding bulges. Mr. Bilson's effort to defend the drawing on the ground that "it is probable that this lower part was not actually plumbed" thus involves an oversight of the mistake higher up, which is expressly mentioned in my first Reply. See quoted footnote in this Paper, and also p. 43 of first Reply: "The upper measure is to be corrected from 0.125 to 0.20."



FIG. 2.—CABLE PLUMB AT THE S.E. CROSSING PIER.

From a Brooklyn Museum enlargement, Series of 1907. The plumb-line has been strengthened. From the level of the triforium down, the cable was wound with black and white tape, which gives it a slightly thickened appearance in the lower part.

as shown in this photograph. The lower down the inclination begins, the less probability there is that the high vault could have caused it, in an inclination of such delicacy as appears in fig. 3, for the force of thrust decreases and the resistance increases in the descending direction.*

I have thus answered Mr. Bilson's Rejoinder about the crossing, which says about that part of the building (page 87): "Mr. Goodyear makes no attempt to meet the historical and structural evidence set forth in my Paper, which is dead against his theory of intentional deflection." My answer is that, as far as the transept fissures, iron cable, and buckling of piers are concerned, the historical and structural evidence does not affect the measures which Mr. Bilson has accepted.

My answer is, furthermore, that fig. 3 supercedes all arguments of the original Criticism based on the condition of the high vaulting of the crossing. The facts are conceded, but their pertinence is denied, since no estimate of the amount of movement which they are supposed to indicate has been offered.† Furthermore, Mr. Bilson "agrees"

* Mr. Bilson argues in his Criticism (p. 414) that the Cathedral office drawings of the two southern crossing piers prove that: "The profiles of the piers cannot properly be described as 'curves' at all; rather they are broken lines which are the perfectly natural result of the movements which have caused them." This argument exhibits a pardonable but unfortunate ignorance of the methods of Greek curve construction, for the curves of the Parthenon are also constructed in broken lines. At both the east and west ends of the Parthenon the curves of the stylobate are constructed in four straight lines, with three bends on each side of a central bend. The curves of the architraves are constructed in four straight lines, with three bends on each side of the central straight line. (See Penrose, *Exposition of Athenian Architecture*, plates 10, 11.) The Cathedral office drawing figures the north face of the south-eastern crossing pier as having four straight lines and three bends, and the accidental bulge is not figured. Thus, if the Cathedral office drawings were to be accepted as accurate records (which they are not), they would prove that vertical curves exist in the Amiens crossing piers which closely resemble the horizontal Parthenon curves. My own present observation of fig. 3, and of its enlargement original, is that the pier recedes in a straight line like the vaulting shafts in the nave (see fig. 13). My latest observations at Rheims also indicate that the effect of a curve may be obtained in a vertical line by a single bend. That the unaided eye does not readily determine where a single bend begins is also proven by the hitherto unsuspected fact that all the vaulting shafts of the Amiens nave bend outward at the same point, directly above the capitals.

† For instance, page 414 of the Criticism appeals to partings (fig. 14 of this Paper), which appear on the wrong side of the northern and southern crossing arches, according to the premises of its own argument. If the partings quoted had been caused by north and south vaulting thrust from the crossing, operating on the piers and the north and south ribs which connect them, such partings ought to appear on the south side of the northern arch and on the north side of the southern arch; but they appear on the sides next the transepts, where compression rather than parting would be expected, as far as the given movement is concerned. Moreover the iron collars at J.K., L.M. (fig. 14), inserted by Bruno Vasseur in 1806, are in the centre rib of

in his Rejoinder (page 89) to my claim that "if the vaulting arches have gone down they must have become distorted, and if they have been distorted, that distortion must be visible." Why then does he not indicate the distortion in the transverse crossing arches 15, 16; 17, 18, fig. 1 which ought to have resulted from 10 inches accidental widening considering that he has catalogued all the distortions of the vaulting ribs which were visible to him (page 89)?

II.

A few words must now be given to Mr. Bilson's theories of the transept fissures, for such an introduction will best enable us to rate at their true value his theories about the cracks in the nave.

Every architect, as well as every student of Viollet-le-Duc, is supposed to know that there are causes of irregular settlement, and of consequent masonry dislocation, which were inevitably, or actually, general in cathedral construction, which were due to the unequal compression of the mortar beds and which were wholly independent of thrust. Where the loading is heaviest, or the masonry courses and mortar beds are more numerous, the compression and consequent subsidence are greatest.‡ If the mortar beds of the crossing piers were compressed more than those of the neighbouring piers and neighbouring walls, as they undoubtedly were,

the crossing vault, which goes from east to west. The Criticism (p. 409) quotes the fact that "certain voussoirs of the ribs of the vault had dropped to a sufficient extent to show a break of 3 inches between them and the adjoining voussoirs which had not so dropped." Quite so; but how can repairs in the centre vaulting rib, which goes from east to west, indicate that a north and south widening is due to thrust? If the collars J.K., L.M. were in the north and south centre rib Mr. Bilson's argument might command our attention. The same passage refers to "several cracks in the panels of the vault, the principal of which are approximately shown by the dotted lines on the plan" (fig. 14). How does Mr. Bilson know that these cracks are not ordinary dilapidations caused by moisture and subsequent freezing weather? How does he know that they were not caused by the downward subsidence of the crossing piers?

* Although the telephoto, fig. 11, does not include these ribs, other enlargements which do include them are numerous, and show them to be in the perfect condition which Mr. Bilson's own silence implies.

† *Ibid.*, IV., page 157, page 170. The related accounts of dislocations caused by unequal compression of the mortar beds specify some as due to unequal loading, and others as due to the unequal compression, under equal loading, which results from the associated use of masonry supports of equal height but unequal number of masonry courses—the thinner courses being more numerous and involving more numerous mortar beds. Viollet-le-Duc's article on Construction gives much greater prominence and much more space to dislocations caused by unequal mortar compression than to those caused by vaulting thrust. The downfall at Beauvais is explicitly stated to have been due to these causes, rather than to vaulting thrust, which was only a contributory cause, after the ruin produced in the supports by unequal compression had occurred (v. IV., page 181).



FIG. 3.—CABLE PLUMB AT THE S.W. CROSSING PIER.

The plumb-line at the left of the pier is a slender cord, suspended near the lens. From a Brooklyn Museum enlargement Series of 1907
The right plumb-line has been strengthened.

by the weight of the heavy crossing spire of early date, the masonry of the adjacent transept arcades and the triforium parapets would be necessarily thrown out of level, and fissures in these transept arcades and parapets would result.

Such fissures, incident to unequal compression and consequent unequal settlement, do not necessarily imply buckling, and they are not caused by thrust. Mr. Bilson's Rejoinder says, however (page 86), that "the cracks shown in fig. 8 decisively demonstrate" that "the lower deflections or bulges . . . are due to the thrust of the great arcades and aisle vaults." This amounts to ascribing the fissures to thrust, when subsidence was the essential cause. For instance, when last in Amiens I measured the subsidence of the parapet shown in Mr. Bilson's fig. 8 at 4 inches, whereas Mr. Bilson has only measured the width of the crack (1½ inches). The buckling on the same side is measured, by photographic methods, at 3 inches; but on the opposite side, shown by fig. 3, where the similar crack is quite obvious and the depression of the parapet level is very considerable, there does not appear to be any northward buckling whatever.

The same overloading might, and certainly did, produce the fissures caused by subsidence and promote the buckling, but overloading is not thrust. Thrust from the transept arcades and from the aisle vaults would promote buckling under the given conditions, and so might increase the width of the fissures; but thrust does not cause unequal subsidence, and unequal subsidence is notably apparent in these fissures.

The upshot of the matter therefore is this. In so far as the transept fissures are dislocations due to unequal subsidence, they are not due to thrust. That the dislocations caused by unequal subsidence are the essential cause of the fissures is apparent from the 4 inches subsidence measured in the south transept, east parapet, and from the depression in the level of the west triforium parapet in the south transept; but Mr. Bilson's publications allow and compel the public to infer that these fissures and dislocations are wholly due "to the thrust of the great arcades and aisle vaults."

No doubt Mr. Bilson would reply that he has followed the account given by M. Durand and that this is the account of the Commission of 1498, which ascribed both the buckling and the fissures to thrust of the transept arcades and aisle vaults.

* It must be agreed by all parties that wherever vertical subsidence has occurred at Amiens it has been due to the unequal compression of the mortar beds and not to the yielding of foundations. The wholly remarkable gridiron foundations at Amiens have been described at length by Viollet-le-Duc (*Dict.* iv, p. 175). They have also been described by M. Durand (vol. i, p. 202) as: "Aussi colossales que le monument lui-même. Construites à la manière d'un immense radier, elles assurent à celui-ci une assiette mécanisable et une solidité de nature à défier toutes les causes de destruction."

I prefer, however, the authority of V. Bédou-Duc on questions of statics which says that the iron cable was introduced to stop the buckling of the piers of the crossing *avant la fin de la pile de la croisée* (*ibid.* p. 100).

It is self-evident that the limit of compressibility in the mortar beds of the crossing piers must have been reached before the buckling occurred, and consequently that it is not the subsidence which must have existed before the buckling took place, if, as they exist in the south transept west arcade, where no northward buckling has happened. As for the report of the nineteenth-century Commission, it is evident that the report was to show the need of the iron cable and to quote the most obvious dilapidations when it is not necessary either to do or to give a philosophical account of all the causes of these dilapidations. Therefore the account thus given of the origin of the trouble need not detain us simply because M. Durand has followed it. The main thing in the mind of the Commission was to show that both the fissures and the buckling made the cable necessary.

III.

It might appear that this discussion of the cause of the transept fissures is academic and unnecessary. Since it has been shown that the bulges of the crossing do not affect the measures for the widening at the crossing or the problems connected with them, it may be asked: Why is it necessary to distinguish between fissures due to thrust and fissures due to subsidence? My answer is that Mr. Bilson has not proved *one* of the cracks in the building to be due to thrust, and he has uniformly overlooked the cause which would be most likely to produce them—viz. unequal and parallel vertical subsidence due to unequal compression of the mortar beds. To concede, by implication or by silence,

* "Pour arrêter le boulement des quatre piles de la croisée fatiguée par la charge de la tour centrale, avant l'incendie de cette tour" (*Dict.* v, II, p. 100). Even if M. Durand be right in supposing this tower to have been of timber (in opposition to Viollet-le-Duc, who held it to be stone) it does not follow that the tower had no weight, or was not a heavy extra load on the crossing piers. This is the rather inconclusive reasoning of Mr. Bilson at page 465 of his original Paper. The fact that the tower had great weight is shown by a subsidence which can have had no other cause. The fact that the pier adjacent transept pier, 18*b*, leans 3 inches against northward thrust (enlèvement exhibit 55, new series) *does not* appear significant, for it proves that northward thrust, if active at all, was limited strictly to the one arcade, 18*a*, *b*. The pier 16*b* leans against northward thrust (enlèvement exhibit 55, series of 1903). The pier 17*a* leans against southward thrust (enlèvement exhibit, series of 1905). The pier 15*a* leans against southward thrust (enlèvement exhibit 59, series of 1903). Thus it appears for all four transept arcades next the crossing, that whatever thrust toward the crossing was in question was confined to the arcades next the crossing piers.

that the transverse cracks have been primarily caused by thrust from the transept arcades is to overlook the cause which undoubtedly, and mainly, did produce them. The inquiry thus becomes pertinent: Was it thrust (as held by the Rejoinder), or was it subsidence, which caused the cracks in the arcades of the nave?

The distinctions in the two cases are obvious. In the transepts Mr. Bilson ascribes the arcade cracks to arcade thrust operating in the line of the arcades below the triforium. In the nave he ascribes arcade cracks of similar nature and also evidently lateral in the line of the arcades, but of much less serious character, to vaulting thrust at the lofty height of the nave, not operating laterally in the line of the arcades, but operating at right angles to that line down to points below the triforium. In the transepts he had some published authority in his favour, although higher published authority and sound argument are against him. In the nave the arcade cracks have already been elaborately published by M. Durand, without the remotest suggestion in that publication that thrust from the nave vaulting caused them. In the transepts, the worst fissure in the building, of $1\frac{1}{4}$ inches in width, is held by Mr. Bilson to explain a movement in the line of the arcades of 3 inches. In the nave much less serious cracks (not fissures at all) are held to explain a movement of $19\frac{1}{2}$ inches.

Who can doubt that Mr. Bilson selected for publication in his Rejoinder a photograph of the worst fissure that he could find in the building? The photographs to follow in this Paper will prove it. If he could measure a lateral crack in the transepts of $1\frac{1}{4}$ inches, why could he not measure some of the cracks which, on his theory, call for a total of $19\frac{1}{2}$ inches of *transverse fractures* in the upper nave? * For here we must distinguish between a lateral crack and a transverse fracture. For Mr. Bilson's theories they are all "cracks," and not a word is vouchsafed either as to measures or as to whether the cracks are lateral or transverse.

Thus the elementary distinction, just indicated for the transept fissures, between movement and dislocation caused by thrust, and movement and dislocation caused by unequal subsidence, now leads me to illustrate and describe the cracks in the masonry of the nave, which are supposed by the Rejoinder to give the *coup de grâce* to the theory of a widening refinement at Amiens.

All these cracks have, as just mentioned, been catalogued by M. Durand,† but they were not ex-

plained by him as caused by an accidental widening of the nave, which is the explanation now given of them by Mr. Bilson. Moreover, when Mr. Bilson published his first Criticism, and when the nave widening was supposed by him, and therefore presumably by M. Durand, to be "certainly not greater" than 7 inches, "and most probably much less," these cracks were not invoked. Now they are sufficiently elastic to account for the $19\frac{1}{2}$ inches widening which Mr. Bilson now willingly admits to exist in the western part of the nave. The question thus presents itself: If the cracks already



FIG. 4.—CRACK IN THE EASTERN SPANDREL OF ARCADE 2, 4, WEST END OF THE NAVE, SOUTH SIDE.
From a Brooklyn Museum photograph. Series of 1907

known to Mr. Bilson and already published by M. Durand will so easily account for $19\frac{1}{2}$ inches accidental widening in the nave, why did their known existence not lead M. Durand and Mr. Bilson to anticipate the existence of such a widening? The answer is that these cracks do not easily, or even possibly, explain any widening whatsoever, for they

* Nineteen and a half inches is the measure "willingly accepted" by Mr. Bilson for the widening in the western nave at 5, 6 (fig. 1). Observations could easily be made at close range along the exterior eleventh-story parapets for any transverse fractures there existing, and such fractures could be easily observed from that level as increasing higher up. Transverse fractures could not be concealed by repairs. The change of surface would always be apparent.

† *Monographie*, I, page 61.

* The widening for the south-west pier was figured by the Cathedral office drawing at $3\frac{1}{2}$ inches (excluding bulge). I have figured Mr. Bilson's original views about the maximum widening in the nave at double that amount, "or most probably much less."

are lateral cracks in an east and west direction, and not transverse fractures in a north and south direction, such as are called for by Mr. Bilson's theory. This will be abundantly shown from photographs now to be quoted and reproduced.

Fig. 4 shows the crack in the arcade 2, 4 (plan, fig. 1), quoted by Mr. Bilson (page 88), on the south side of the nave between the 6th pier (in my numbering) and the tower pier. Fig. 5 shows the similar crack in the arcade 1, 3, quoted by Mr. Bilson (page 88), at the corresponding point on the

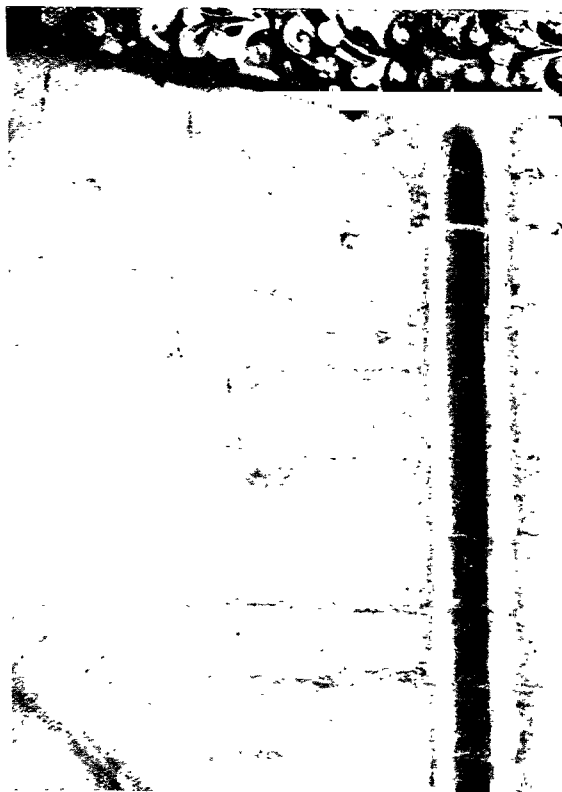


FIG. 5.—CRACK IN THE EASTERN SPANDRIL OF ARCADE 1, 3, WEST END OF THE NAVE, NORTH SIDE.

DEPT. OF PUBLIC WORKS, PHOTOGRAPHIC SERIES OF 1907.

north side. As soon as illustrated, these cracks are visibly due to a slight vertical subsidence of the piers 3, 4, which was slightly greater than that affecting adjacent parts of the structure, all of which were bound to settle, by compression of the mortar beds, as explained by Viollet-le-Duc in the passages referred to in footnote (page 720). A gradual descent of the cracks, step fashion, in the direction from west to east will be noticed on both sides (figs. 4, 5). This, taken with the fact that the eastern spandrils are the ones affected, shows that it is the piers 3, 4, which have gone down, as compared with 1, 2, and not the reverse.

On page 88 of the Rejoinder it is argued, since the tower piers are perpendicular throughout their height, whereas the following piers are perpendicular only to the arcade capitals, that these piers, which lean outward above the arcade caps, must therefore have caused an accidental twist in plan, beginning in the spandrils, including them, and continuing above them. That a twist in plan must exist I heartily agree. Is this twist accidental, and do the quoted cracks prove it to be accidental? The following quotation is from page 88 of the Rejoinder:—

"While the structure remains in the eastern bay, 1, 3, there is a vertical crack in the eastern spandril of the main arcade, and such a crack is the only horizontal crack of the triforium, extending upwards through the rest of the elevation, and down to the base of the triforium arch in the tower, and at the base of the triforium of this bay. In the bay 3, 5, there are similar cracks in both spandrils of the main arcade, and also in the western spandril of the bay 5, 7. The same spandril's a similar crack. In the western bay 2, 4, there is a crack in the eastern spandril of the main arcade, extending through the triforium parapet, and there is a corresponding crack in the triforium of the eastern half of the triforium."

This apparently formidable catalogue of cracks is italicised in order to emphasise Mr. Bilson's alarmist methods and his disposition to indulge in elaborate literary descriptions of other similar dilapidations, which amount to nothing for his argument when examined. One can hardly realise how hollow and shallow this paragraph is, until we examine the photographs. Take, for instance, fig. 4, for arcade 2, 4, just quoted by Mr. Bilson for the crack in the eastern spandril. If this were not a vertical crack, due to unequal subsidence, it would show a fracture stepping back on the line of the crack with a change of surface amounting to $2\frac{3}{4}$ inches abrupt backward break at the string course. But the surface of the spandril is seen to be a plane surface.

Take again, for instance, fig. 5. The crack there shown in the bay, 1, 3, is a vertical crack due to unequal subsidence. If it were due to an outward movement resulting in a transverse fracture of the wall, we should be aware of it in the surface of the spandril, as shown by fig. 6, and also by fig. 2 of the first Reply. The surfaces are, however, smooth and plane. How clearly visible $3\frac{1}{2}$ -inch transverse fracture† would be on fig. 6 may be estimated from the flat moulding under the decorative carving of the string course, which projects from the wall about 2 inches. On Mr. Bilson's theory this moulding ought to exhibit a

* The photographic measurement for recession in the given height of the given vaulting shaft is $2\frac{3}{4}$ inches.

† The photographic measurement accepted by Mr. Bilson, for the recession in the given height of the given vaulting shaft, is $3\frac{1}{2}$ inches (not $2\frac{3}{4}$ inches as supposed by him). The true measurement may be computed from the disc in fig. 2 of my first Reply.

backward fracture equal in amount to $1\frac{1}{2}$ times its own projection.

Mr. Bilson should undoubtedly be able, according to his theory, to point out on these photographs (figs. 5 and 6) an abruptly receding surface, following the line of fracture shown by fig. 5, and showing $3\frac{1}{2}$ -inch abrupt transverse and receding fracture



FIG. 6.—EASTERN PAROISE OF SECOND 1, 3, WEST END OF THE NAVE, NORTH SIDE, SHOWING A PLANE SURFACE, WITHOUT TRANSVERSE FRACTURE.

Detail from a Brooklyn Museum enlargement. Series of 1907.

at the string course. Nothing of this kind appears. Why not? Because Mr. Bilson has tried to explain an unequal vertical subsidence, due to unequal compression of the mortar beds, as the result of a transverse movement produced by vaulting thrust operating from the top of the nave. It is useless to say that the cracks have been pointed up or filled in. If they have been so filled in, an abrupt change of surface would still be visible.

Let us now pass inside the triforium and examine the corresponding cracks in the triforium wall, which are appealed to as evidence of vaulting

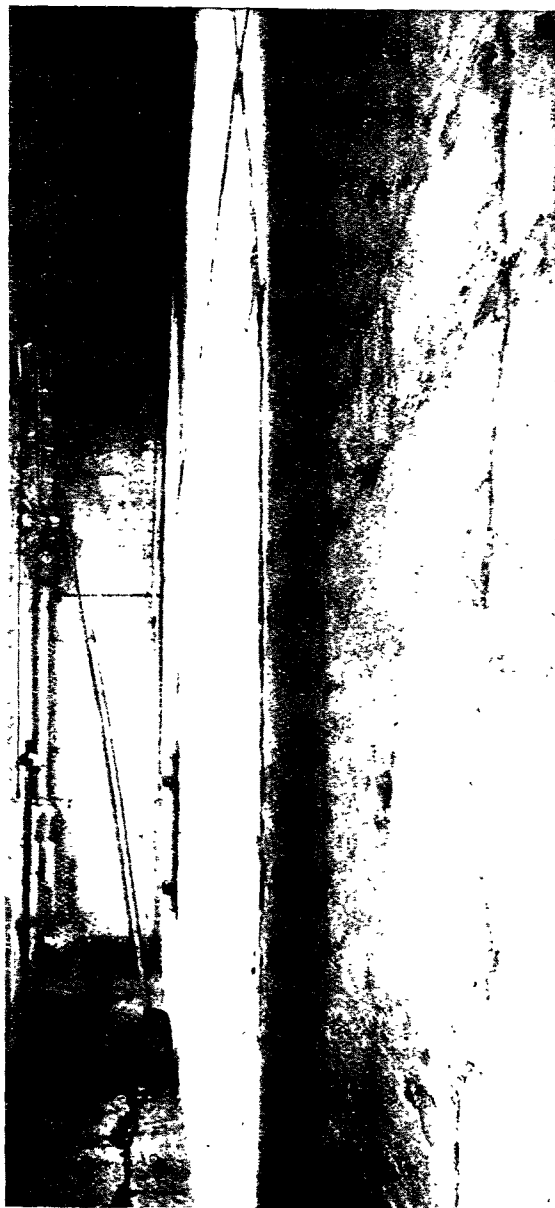


FIG. 7.—CRACKS AT THE WEST END OF THE TRIFORIUM WALL, NORTH SIDE (BAY 1, 3). THE DIAMETER OF THE DISC ON SURVEYOR'S ROD (CONSIDERABLY BEYOND THE PLANE OF MEASUREMENT) IS $5\frac{1}{2}$ INCHES.

From a Brooklyn Museum enlargement. Series of 1907.

thrust (fig. 7). On Mr. Bilson's theory the farther crack seen on the right hand in the cut should represent a fracture in the wall with an abrupt outward break of $3\frac{1}{2}$ inches *at the triforium pave-*



FIG. 5.—THE GALLERY, WEST END OF THE NAVY, NORTH SIDE, SHOWING A CRACK OVER THE THEOREM ARCH, AND IN THE WINDOW SILL, OF FIG. 1, 2, 3, ON THE TABLET III. Also showing the condition of the sills, as regards cracks, of FIG. 3, 4. Detail from a Brooklyn Museum enlargement, Series of 1907.

ment, and this outward break should amount to $6\frac{3}{4}$ inches at the top of the triforium wall.* Nothing of the kind appears. Although there are two cracks rather than one, as mentioned by Mr. Bilson, his case would not be bettered by dividing the fractures called for between the two. (The circular disc on the rod beside the triforium parapet has an outside diameter of $5\frac{1}{2}$ inches, but is considerably beyond the planes of measurement.)

Fig. 8 shows the crack, continuing the one seen in fig. 5, through the triforium arch and through the sill of the clerestory window, as mentioned by Mr. Bilson. On Mr. Bilson's theory the crack in the window sill ought once more to be an outward fracture of $6\frac{3}{4}$ inches and upwards, but no such fracture appears. Fig. 8 also includes the next bay, 3, 5, and ought to show fractures of $1\frac{3}{4}$ inch in the window sills above the triforium arches in that bay.† But no cracks at all are quoted for this bay above the triforium and none worth mentioning appear. Those quoted for 3, 5 in the spandrels are too insignificant for illustration; the enlargement

from which fig. 8 is taken shows one of these cracks, and shows both spandrels with plane surface.

The next illustration, fig. 9, carries us to the exterior parapet on the north side, at the base of the clerestory, which is the ceiling of the triforium, designated by M. Durand as the *galerie sans bords*. The level corresponds to that just under the windows in fig. 8. A surveyor's rod (disc 8 by 10 inches) leans against the column. Consider that the middle colonette of the pier is about 8 inches in profile diameter. Consider that a forward break in the masonry of the window sill, of $6\frac{3}{4}$ inches, and nearly equal in amount to the profile diameter of this colonette, is called for at this point by Mr. Bilson's theory. It need hardly be mentioned that no possible repairs could conceal exterior breaks of the given character and extent.‡ If such breaks existed it would be incredible that they had not been mentioned by M. Durand. It is no less surprising that Mr. Bilson neglects to state that he has inspected these easily accessible points with a view to the observation of fractures.† It is much more convenient and much more convincing to have fractures under your very feet than it is to inspect them at a lofty height in the interior from the pavement of the nave. However, if such breaks really existed, it would not have been left to Mr. Bilson to find and explain them, or to me to inspire Mr. Bilson with the thought that they ought to exist. On the contrary, the $19\frac{1}{2}$ inches widening at 5, 6 would in that case be a matter of ancient history, embalmed in M. Durand's exhaustive work as known for many generations.

An illustration similar to fig. 9 is available, though not published, for the *galerie sans bords* on the south side of the Cathedral, showing the exterior window sill 2, 4. Here a transverse fracture of $5\frac{1}{4}$ inches — is called for by Mr. Bilson's theory, but the sill shows neither fractures nor cracks.

It must be remembered that 2 inches out of 12 inches total measure for recession at pier 5 are credited to constructive stepping back of the clerestory vaulting shaft (see explanations of first Reply, page 47, and also page 733 and fig. 12 of this Paper), and these 2 inches cannot be figured for fractures.

Mr. Bilson's own calculations would call for a total of $4\frac{1}{2}$ inches transverse fractures in this bay at the springing of the vault, but his case is not bettered by reduction to a total of $2\frac{1}{2}$ inches.

* The platform itself is covered with lead, but the sill is not, and the outer edge of the platform is not broken.

† He reports on the flying buttress at 3*a*, 5*b*, and must have been at the very spot, unless this observation was made from the less convenient aisle roof lower down.

‡ Pier 4.—Disc measure from arcade cap to triforium string 2 $\frac{1}{4}$
Triforium plumb estimate for 24 feet at the rate of 0.13 in 15 feet 2 $\frac{3}{4}$
—
5 $\frac{1}{4}$

* $3\frac{1}{2}$ + $3\frac{1}{2}$ inches. The total recession of the sixth pier (No. 3, fig. 1) is $7\frac{1}{2}$ inches (see table of measures accepted by Mr. Bilson). This estimate is obtained as follows (see requested explanations, page 717):—

	Inches
Plumb from triforium to arcade cap, with photographic measurement, by surveyor's rod disc, on desired plane	$3\frac{1}{2}$
Triforium inclination, estimated for 24 feet from actual plumb of foot decimal 0.20 with line of 15 feet	$3\frac{1}{2}$
Clerestory vaulting shaft estimated for height of 13 feet 4 inches from the same plumb	$1\frac{1}{4}$
—	—
Subtract an inch for projection of the vaulting shaft beyond the pier at arcade cap	$7\frac{1}{2}$

This subtraction is necessary in order that the combination estimates may start from the same surface as the single measures for recession from base to vaulting, obtained by other enlargements for three piers of the north side (see table). These measures start from the surface of the perpendicular pier at the base. The combination estimates, from measures actually taken in detail, are each increased by an inch, because computed above the arcade capital, and because the vaulting shafts project an inch on the north side. On the south side only one vaulting shaft so projects (No. 4, fig. 1), and subtractions are not necessary.

	Inches
† Pier 3.—Disc measurement from arcade cap to triforium string	$3\frac{1}{2}$
Triforium plumb estimate for 24 feet, at the rate of 0.20 in 15 feet	$3\frac{1}{2}$
—	—
6 $\frac{1}{2}$	
Pier 5.—Disc measurement from arcade cap to triforium string	$3\frac{1}{4}$
Triforium plumb estimate for 24 feet, at the rate of 0.23 in 15 feet	$4\frac{3}{4}$
—	—
8 $\frac{1}{2}$	
Excess recession for vaulting shaft of pier 5, at level of triforium ceiling	$1\frac{3}{4}$

The failure of the Rejoinder to make any report whatever of observations for cracks along the *galeries sans bords* is in curious contrast with the positive dogmatism of its list of cracks lower down. Clearly

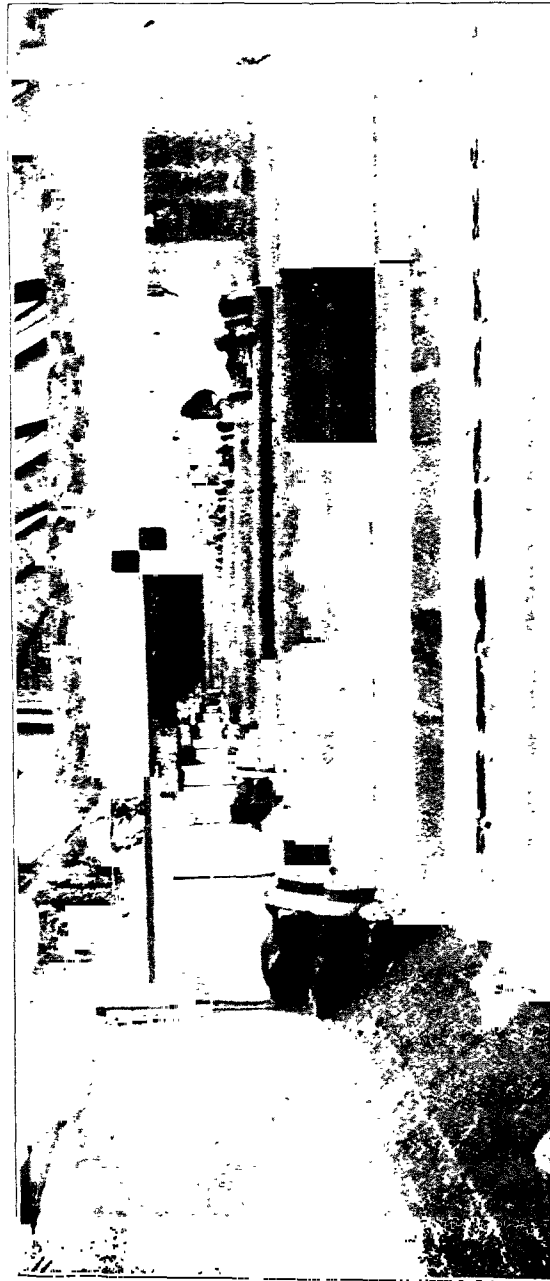


FIG. 9.—THE GALERIE SANS BORDS, NORTH SIDE, LOOKING EAST.

From a Breton Mason's enlargement. The sill of window 13 is on the right. The line to which the measurements of the constructive bend in plan were taken, is stretched at equal distances from the columns at opposite ends of the parapet. The photograph shows the following fracture. It also shows the bend in the alignment of the columns and on the outer edge of the parapet.

the fractures in transverse direction, which are called for by Mr. Bilson's theory, should increase in measurement with the height and with the increase of accidental inclination. Moreover, on these parapets the observer is in direct contact with the masonry. He can touch it with hands and feet. It is close to his eyes. Why is it, then, that the catalogue of cracks stops where it ought to begin? The following answer is an ultimate point blank overthrow of Mr. Bilson's theory.

Mr. Bilson is quite right in his perception that there must be a twist in the plan of the cathedral at and above the level of the triforium, considering that the tower piers are perpendicular and that the others are inclined. His difficulty is that he did not take measurements for constructive bends in plan in the *galeries sans bords*. If he had done so his theory would have died in birth. Fig. 9 shows the line stretched from one extremity of the parapet to the other which was used in taking the measurements for a constructive bend in plan. Even in the small dimensions of fig. 9 the curve can be seen in the outer edge of the parapet and in the alignment of the columns. A similar unpublished illustration is extant for the south side.

IV.

The question has been, so far, left open, as to the special cause of the vertical subsidence which produced the cracks in the arcades of the nave at the eastern spandrils of 1, 3, 2, 4 (figs. 4, 5, &c.). Mr. Bilson's theory of these cracks, that they were caused by vaulting thrust from the high nave, now appears to be not only mistaken and false, but even quite reckless, considering that the facts which are illustrated by the figs. 4-9 inclusive, were easily within the limits of his own observation and lay, in some cases, at his very feet, in several parts of the cathedral. Therefore it might appear that any further discussion of the causes of these spandril cracks would be quite academic and an unnecessary expansion of the controversy. At all events the probable cause might appear to be an unequal compression of the mortar beds, as between piers 1 and 3 and piers 2 and 4.

It happens, however, that the most important, if not the only, cause of these cracks was that which produced the fractures in the triforium lintels (fig. 10, E.). As the Rejoinder argument (page 88) about these lintels is altogether its most curious and astounding feature, the discussion of the true cause of the spandril cracks becomes necessary, as connected with the question of the lintels.

Viollet-le-Duc has pointed out that the downfall at Beauvais was not primarily, due to vaulting thrust. It was the result of a daring development of a system of support found at Amiens, and thence borrowed.* This was the system of combining

* *Ibid.* IV., pages 170, 171, with illustration.

columns composed of monolithic drums, placed *en délit* (cleavage upright), with the piers of ordinary masonry construction. This system at Amiens is shown by fig. 10, in which the supports at the heads of the flying buttresses are cylindrical columns (monolithic in cross section and with blocks *en délit*), one placed above the other: the lower one resting on the triforium wall, while the inner piers support the main load of the vaulting.* Viollet-le-Duc's article on Construction has explicitly described and illustrated this system of support at Amiens, and has explicitly explained the function and nature of such columns, composed of blocks placed *en délit*. Cylindrical columns, composed of monolithic drums, are naturally built of fewer blocks than are used in the masonry of piers, and to obtain the desired greater height in the drums they are placed *en délit*—that is, with the "beds" or cleavage upright. The object is to obtain a more slender and a more rigid support than that offered by masonry piers, because the mortar beds being less numerous than in the masonry piers, the settlement due to compression of the mortar beds is correspondingly diminished.

At Beauvais, when the interior piers settled, as result of the drying out of the mortar beds,† the colonettes *en délit*, which did not settle as much as the piers, for reasons explained, could not support the consequent loading (not thrust) which was thrown on them. They were broken down by the overloading and gave way. Hence the weight and thrust of the vault came entirely on the heads of the flying buttresses, and the disaster followed. It is distinctly stated that the enormous edifice would have preserved a perfect stability if the columns *en délit* at Beauvais had been of better building stone, and that the logic of the construction was perfect. It was poor material which was at fault.‡ This recital shows the importance attached by Viollet-le-Duc to the unequal compressibility of mortar beds, due in this instance to the juxtaposition of columns *en délit* with piers of ordinary masonry and more mortar beds, and his opinion that vaulting thrust was not the primary cause of disaster at Beauvais.

* The distinction between loading and thrust has to be considered here. Viollet-le-Duc's theory of Gothic construction is that of a pier so rendered rigid by its loading that the side thrust inward below, and the nave thrust outward above, neutralise one another. The nave thrust is thus converted into loading, unless the equilibrium is disturbed, and only then are the flying buttresses needed. *Dict.* IV., page 74, "L'arc boutant est simplement un obstacle opposé non point aux pressions obliques, mais à leur effet si l'équilibre venait de se déranger."

† *Dict.* IV., pages 180, 181: "Les désordres qui se sont manifestés dans la construction sont venus tous de là; ces colonettes, trop grêles, se sont brisées, car elles ne pouvaient résister à la charge qui se reporta sur elles, lorsque les piles intérieures eurent à tasser par suite de la dessiccation des mortiers."

‡ *Dict.* IV., pages 174, 175.

At Amiens the unequal compressibility of the columns *en délit*, and of the associated piers, has only resulted in the fracture of a certain number of lintels in the triforium, due to the unequal and greater subsidence of the piers, and this subsidence is not only due to the greater number of mortar beds, but also to the fact that the piers support the main loading of the vaulting. This cause of the fractured lintels at Amiens has been described by M. Durand, in conformity with the explanation just offered, and in a passage which I have quoted in my Reply.

Mr. Bilson's Criticism attributed the fractured triforium lintels to the vaulting thrust (page 410). In my Reply I quoted the wholly different and correct explanation given by M. Durand, suggesting that Mr. Bilson had overlooked it, and I will now quote it again:—"La compressibilité des parties intérieure et postérieure du pilier se trouvant inégale par suite de la rigidité de la colonne G, qui est en délit, un certain nombre de linteaux E se sont brisés." M. Durand's footnote thus says that the compressibility of the interior and posterior parts of the supports, being unequal, on account of the rigidity of the column G, which is built *en délit* (H is, of course, to be included), a certain number of lintels were broken in consequence. But Mr. Bilson's Rejoinder says: "La

* The unequal and slightly greater subsidence of the piers, as compared with the exterior buttresses, was even foreseen and desired at Amiens. See *Dict.* IV., page 170, for illustration and reasons of statics connected with the action of the buttresses.

† *Cathédrale d'Amiens*. Georges Durand. Tome 1^{re}, page 222, note.

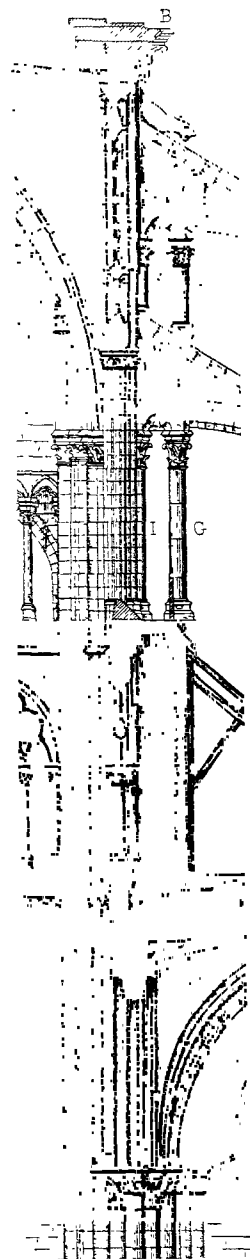


FIG. 10.—DETAIL FROM THE SECTION OF THE CATHEDRAL, AS PUBLISHED BY DURAND (PLATE VIII), WITH THE LETTERING USED IN HIS EXPLANATION OF THE FRACTURES IN THE TRIFORIUM LINTELS.

compressibilité des parties antérieure et postérieure du pilier se trouvant inégale" implies movement, "and this movement can only have been caused by the thrust of the nave vault." Now comes an even more astonishing statement: "I have M. Durand's authority for saying that he entirely agrees with me on this point." In that case Mr. Bilson has M. Durand's authority for stating that a dislocation caused by unequal compressibility of the masonry can only have been caused by vaulting thrust—i.e. by another cause than the unequal compressibility of the masonry.

Fortunately, M. Durand's original statement needs no explanation, and Viollet-le-Duc's authority will replace his own, if he retracts or modifies it. Thus, presuming that the unequal subsidence of certain piers of the nave in the Cathedral of Amiens has been properly explained by Viollet-le-Duc, if not by M. Durand, it only remains to inquire whether the triforium lintels of the piers 3 and 4, beside which the spandril cracks occur, are among those which exhibit the debated fractures. If such fractures are found in the triforium lintels of piers 3 and 4, the spandril cracks are also explained by the same settlement. Fortunately the Rejoinder can be quoted for pier 4.* As for pier 2, the fracture is shown by an enlargement exhibit, one of nine for the triforium (with camera back of the position taken for fig. 7).

Mr. Bilson's controlling idea that "movement" in a cathedral must always be explained by "thrust of the nave vault" is very explicitly illustrated in the preceding paragraphs, and these paragraphs categorically challenge and contradict this opinion.

V.

We are now prepared to examine the Rejoinder's elaborate account of the cracks and distortions in the nave vaulting; for the same dislocations which caused the spandril cracks and the fractured lintels must necessarily explain many of the cracks in the wall cells of the vaulting. The well attested percolations of water in various parts of the vaulting, followed by frost and the expansion of the joints produced by ice, would explain others. Of the cracks and distortions of the nave vaulting Mr. Bilson has given a catalogue, covering, with his discussion of them, two columns and a half (pages 88, 89). No doubt the effect is imposing for the rapid reader, and calculated to give pause to experts, who will doubtless hold their opinions in suspense until some reply is made.

Now what is the matter in debate? It has recently appeared that the widening in the Amiens nave is very considerably greater than has ever been previously supposed, either by Mr. Bilson, or

by anyone else. The measures accepted by Mr. Bilson in total as follows:—

Widening of the Nave

First bay (13, 14)	12
Second bay (11, 12)	14½
Third bay (9, 10)	16
Fourth bay (7, 8)	15½
Fifth bay (5, 6)	19½
Sixth bay (3, 4)	14

Up to the date of my Reply the least recession at the crossing, north side, was supposed by Mr. Bilson to be 3½ inches at the south-west pier, and the divergences in the nave were stated by him to be "certainly not greater and most probably much less."† Mr. Bilson also stated that "M. Durand has most kindly placed his intimate knowledge of the Cathedral at my disposal,"‡ from which we may safely conclude that M. Durand approved of Mr. Bilson's views on this head. Now Mr. Bilson is careful to assure us that he had noted the "very pronounced" cracks in the vaulting ribs and vault cells of the western bays (where he assures us that they are more prominent than elsewhere) "before I had seen Mr. Goodyear's Reply."§ Does it not therefore inevitably follow that he and M. Durand had formerly considered 7 inches an excessive allowance for the amount of accidental thrust which had caused these dilapidations? In the original Criticism these known dilapidations were supposed to result from an accidental widening of "most probably much less" than 7 inches. But now it appears that they will easily account for 19½ inches. What is the explanation of this change in the state of affairs? It is a distressing illustration of Mr. Bilson's elastic methods of argument, and of his indifference to the exact relations of cause and result, to find that the same cracks and distortions which were once good for "much less" than 7 inches are now good for 19½ inches. Naturally it is not necessary for me to do more than say that I am willing to make the same allowance for dilapidations which Mr. Bilson and M. Durand formerly thought sufficient, viz. something much less than 7 inches accidental widening, charging the rest to intentional construction. Or else it is incumbent on Mr. Bilson to state that he has discovered previously unnoticed dilapidations; but he expressly informs us that the most important ones, now elaborately described, were previously known to him.

In his Rejoinder (page 87) Mr. Bilson also quotes "the dilapidations described in the reports of Sam-bucy and Grandelas," but in his original Criticism

* Part of the disparity of measurement at this bay has been noted (footnote, p. 727) as due to a constructive and apparently experimental stepping back of 2 inches in the upper member of the vaulting shaft on the north side (fig. 12 and p. 733). As far as slopes are concerned, whether intended or accidental, they would figure 17 to 17½ inches.

† Criticism, page 115.

‡ *Ibid.* page 401.

§ Footnote, page 89, Rejoinder.

* *Italics* by W. H. G.

† "Some of the lintels over the triforium passage are fractured, among them that behind the pier 4" (page 88).

he had already at great length* rehearsed the accounts given by M. Durand of the dilapidations reported by Sambucy and Grandclas. He had already then mentioned them as "frightful." If we had not read M. Durand's book we still knew, from the Criticism, about Grandclas' report of 1805, that: "In several bays the vaults are separated from the walls in such a disturbing manner that in many places it is possible to put the hand between the ogive and the wall," &c. In June 1906 we knew as much as Mr. Bilson told us in December 1907. In June 1906, 7 inches widening was "most probably" a good deal too much to allow for all this. In December 1907, 19½ inches is just about right.

Mr. Bilson says: "M. Durand tells me that he believes that the nave vaulting has been repaired, but that these repairs have been *comparatively slight*, as its condition did not need *extensive repair*."† Is there any expert who is prepared to say that repairs of fissures for the widenings just quoted could be called "comparatively slight"? Viollet-le-Duc says that the nave at Amiens "has never been distorted or thrust outward."‡ Mr. Bilson says (page 89), about this quotation, that Viollet-le-Duc "was a practical man and must have known that the movement in the nave of Amiens was insignificant compared with that in some churches with which he had to deal." But what Viollet-le-Duc says is that there has been *no* perceptible movement. Moreover, I do not agree with Mr. Bilson that Viollet-le-Duc would have considered such fissures insignificant, or that he would have spoken of a church which exhibited such fissures as not having suffered from thrust (*ni déformée ni déversée*). Nor is Mr. Bilson quite ingenuous in suggesting that widenings of such amount were known, before my studies, to be common in French Gothic. M. Choisy may be presumed to have experience in this matter, and he says of the 20-inch widening at Rheims that the facts would appear to be improbable if they were not verified by photography.§

The rise of the transverse joints in the wall cells above a straight horizontal line is only 20 inches, in a clear width of 40 feet 10 inches. Thus almost the entire amount of widening at these joints would have to be figured for fissures. Now Mr. Bilson's account of the cracks in the wall cells is a curious anticlimax when the known facts are considered. He says (page 88) that "In some bays there is

more than one such crack in the wall cell." Therefore, in some bays there is only one crack in the wall cells of a given side. But there is no point at which the widening at the joints of the wall cells is less than 12 inches, or 6 inches, more or less, to a side. Therefore, where Mr. Bilson saw only one crack, it must have been a single fissure (filled in, of course) of at least about 6 inches width, even in the minimum widening, which is absurd.*

Again; compare the report of Grandclas. It mentions fissures between the vaulting cells and the wall, into which the hand could be inserted, as the cases of most extreme gravity, in the way of fissures, which were known to him. Certainly such fissures, of possibly 1½ inch parting, ought to be a cause for grave alarm; but what an anticlimax this statement offers, when compared with the fissures which are called for when the theory of accident is applied to widenings of the now accepted amount. How could such fissures be reconciled with M. Durand's statement that the repairs of the nave vaulting have been "comparatively slight"?

Thus the Rejoinder's complaint (page 89) may now be noticed, that I "never mention the iron ties," which were inserted over the vaulting in the nave and choir by Grandclas. The reason is partly given by Mr. Bilson himself, who quotes M. Durand's remark† that the report of Grandclas which called for the iron ties "seems exaggerated," in spite of the fact that he was allowed to put them in. There is still another reason. Partings between the wall and vaulting, into which the hand can be inserted, ought to have caused serious alarm. Some movement must have taken place; what this movement was I shall presently undertake to estimate, and if iron ties were thought necessary then, there is no reason now for saying that they were inadvisable. Moreover, Grandclas would naturally have ascribed the entire widening, of which he was aware, to thrust, just as Mr. Bilson does now, and this must have influenced his action in inserting the iron ties.

VI.

We come now to the distorted vaulting ribs.‡ The fairest way to deal with these is to publish a telephoto (fig. 11), showing all the transverse ribs which exhibit distortions, and to point out that Mr. Bilson agrees with me in considering the distortion

* As a matter of fact I have considerably understated the amount of fissures which are called for by the accepted rates of inclination. The inclinations which are accepted for the height of the capitals, at the springing of the vaulting, continue to the tops of the clerestory windows (as they also do at Rheims). Thus the widening at the transverse joints of the wall cells is one third greater than it is at the level of the capitals. At this higher level the minimum widening is 16 inches, and the minimum width of a single fissure would therefore be about 8 inches, on the line of the transverse joint.

† Criticism, page 410.

‡ Diagram, page 89, Rejoinder.

* The entire page 410.

† Footnote, page 87, Rejoinder. Italics by W. H. G.

‡ "Cependant cette nef . . . ne s'est ni déformée ni déversée. La construction n'a subi aucune altération sensible." *Dict.*, II., page 333.

§ *Comptes Rendus, Académie des Inscriptions et Belles-Lettres, Bulletin d'Avril*, pages 192-3. M. Choisy says of the enlargements, some of which he showed to the Academy: "Il serait souhaitable qu'une partie, au moins, de cette précieuse collection pût figurer parmi les documents dans nos musées."



FIG. 11. PHOTOGRAPH OF THE NAVE VAULTING, TAKEN FROM THE CHORUS TRIUMPHUM, SHOWING THE TRACED TRANVERSE (A) 7' 6" NEXT TO THE LAST ONE ON THE RIGHT AND THE CONDITION OF OTHER TRANVERSE RIBS. THE DELAYED TRANVERSE (B) 11' 11" NEXT TO THE LAST ONE IS IN THE FOREGROUND, NEXT THE CROSSING ARCH.

From a Brooklyn Museum collection, Series of 1907

shown in the rib at the fifth bay of my numbering, (5, 6, fig. 1) as "the most marked." The Rejoinder announces minor distortions as follows: transverse; 9, 10, south half; 11, 12, north half; 13, 14, north half. All these ribs are well illustrated by the telephoto (compare fig. 1, Durand plan, for location). I do not agree that the north side of 13, 14 shows distortion and appeal to the telephoto. The diagonal ribs mentioned as distorted are 1, 4; 7, 10; 9, 12: all north side. They do not show well in the telephoto, and we will return to the transverse 5, 6, as being the "most marked" distortion, by mutual consent.

We will now inquire what transverse ribs are not mentioned by Mr. Bilson as distorted. They are 3, 4; 7, 8; 15, 16; and 17, 18. The "accepted"

Since it appears that 15 inches widening has caused no distortion in transverse 7, 8, it would appear that we might allow the difference between 15 inches at 7, 8, and 19½ inches at 5, 6, for the widening due to thrust which caused the distortion at 5, 6. About this amount of allowance will appear later on, and from entirely different considerations, to be proper.

It is impossible to discuss the distortion of the transverse rib at 5, 6, without noting, as Mr. Bilson has also done, the excess of the northern widening at pier 5, which is 12 inches, as against 7½ on one side and 9½ on the other, neither of the corresponding transverse ribs showing distortion. This leads us to remember that 2 inches out of 12 represent a constructive stepping back in the upper

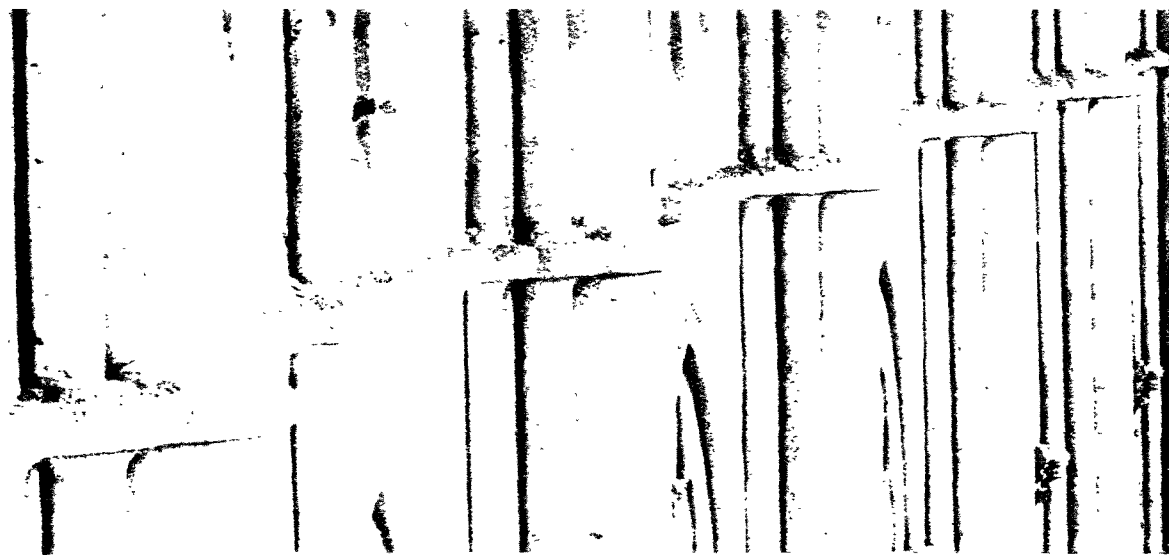


FIG. 12.—VAULTING-SHAFTS, NORTH SIDE 5, 7, 9, 11, 13, AT THE LEVEL OF THE CELESTORY WINDOW SILLS, SHOWING THE STEPPING BACK OF SHAFT 5, ON THE LEFT IN THE PHOTOGRAPH, TAKEN FROM THE HIGH GALLERY ABOVE THE ORGAN LOFT, ENLARGED IN HALF-TONE FROM A 5 BY 7 PRINT. BROOKLYN MUSEUM SERIES OF 1907.

widening at 3, 4, is 14 inches at the capitals; the "accepted" widening at 7, 8, is 15½ inches at the capitals. It would therefore appear, on Mr. Bilson's own showing, that widenings of 14 and 15 inches exist at Amiens which have not distorted the transverse ribs. Moreover, Mr. Bilson "agrees" (page 89) to my position that, "if the vaulting arches have gone down they must have become distorted, and if they have been distorted, that distortion must be visible." Why then is it invisible in the transverse ribs 3, 4; 7, 8; 13, 14; 15, 16; 17, 18? Clearly, because they have not gone down. Therefore Mr. Bilson must suppose that the ribs have spread accidentally, 15 inches at 7, 8, without going down, which is nonsense.*

* The Rejoinder (page 89) hedges on the rib distortions to the effect that: "In many cases it is impossible to reach a position from which a good view could be obtained." but

member of the vaulting shaft (fig. 12). When these 2 inches are subtracted, it appears that the slope of the pier 5 is closely equal to that of piers 7, 9 and 11 on the same side (table at page 717).

There is no other instance of stepping back in any vaulting shaft at Amiens. It was evidently a constructive experiment, and it has occurred to me that the unequal and extra widening thus introduced may have weakened the transverse rib and caused the distortion above that pier.¹

7, 8 is between 5, 6 and 9, 10, and can be as easily seen as either of them. At all events it is well shown by the telephoto.

* In St. Jacques, at Rheims, there are three different methods of widening in as many bays, the piers corresponding by pairs. In one of these bays two successive sections of the vaulting shafts over the piers are perpendicular on both sides, and the widening is obtained by successive stepping back of perpendicular sections of

In the matter of the amount of settlement at the crown of the vaulting, which would result from accidental widening, Mr. Bilson has corrected my estimate in a manner which must be admitted to be correct in theory, supposing his premises facts to have happened as he supposes them to happen. I have estimated the lowering at the crown, in case of accidental divergence, to be one-half the divergence, or 10 inches for an accidental widening of 20 inches. Mr. Bilson points out,* in effect, that this estimate only considers what would happen if a Gothic vaulting had straight ribs, and that an antecedent flattening out and straightening of the curving ribs would considerably reduce this estimate. Undoubtedly this is true in theory. The evidence that any Gothic vaulting had carefully straightened out all its ribs, before it decided to lower at the crown, would be quite interesting and would certainly reduce my estimate. Mr. Bilson may know churches which illustrate this interesting stage of the arrested development of accidental "refinements," but I do not. However, I agree to his opinion (page 89) that "absence of settlement at the crown" . . . "must be decided by the condition of the ribs themselves," and will leave this branch of the subject with the reflection that transverse ribs 3, 4; 7, 8; 13, 14; 15, 16; 17, 18; prove that there has been no settlement at the crown in the nave at Amiens, as far as those ribs are concerned, and such settlement is called for in their case by the accepted widening measures, if thrust had produced them.

VII.

After disposing of Mr. Bilson's theories, I am naturally led to consider what his Rejoinder has to say about my own demonstration. This proves that the outward inclinations of the vaulting shafts at Amiens include the masonry of the spandrils of the arcades, that the inclinations uniformly begin at the same point, viz., just over the arcade capitals, and that these inclinations, at that point, are opposed to the aisle thrust toward the nave. The demonstration proves that the inclinations are not the result of aisle thrust, because the majority of the piers (and all on the north side) are perpendicular, and finally the demonstration appeals to the fact that the inclinations (which include the triforium arcades) are in straight lines up to the nave vaulting, whereas they would bend outward at or above the triforium, if thrust from the nave vaulting had produced them. Fig. 13 is intended to recall the points illustrated by various cuts of larger size in the original Reply.

vaulting-shaft. Experimental variations have other illustrations, as in Troyes Cathedral, where the eastern crossing pier chance and diminish the pitch of the widening, about half-way up, thus forming slight elbows in the piers. The diminished pitch continues up to the vaulting. On the theory of thrust the pitch ought to increase, not diminish.

* Rejoinder, page 89, and footnote.

The Rejoinder dismisses this demonstration with careful, and perhaps significant, brevity; with a slighting reference, with an incomprehensible



FIG. 13.—PIERS AT PIER 7, NORTH SIDE, FOR THE VAULTING-SHAFT BETWEEN ARCADE CAPITAL AND TRIFORIUM SEATING. ONLY 10 FEET ON THE PLANE OF MEASUREMENT. TRIFORIUM MEASURED AT FINCHES BY COMPASS. FIRST ONE OF TWELVE SIMILAR DETAILS FOR THE PIERS OF THE NAVE. THE OTHER FIFTEEN IS PERPENDICULAR.

From a Brooklyn Museum enlargement, Series of 1907.

suggestion, and with a quibble about the straight lines.

The incomprehensible suggestion (page 87) relates to the point that the inclinations begin at the arcade capitals and against the aisle thrust. Mr. Bilson says: "This argument appears to me to be based on a misconception as to the direction of the thrusts, a misconception which might be removed by a study of Viollet-le-Duc's article on Construction," then referring to page 65 and fig. 34 of that article.

From some preceding portions of this Reply it would appear that Mr. Bilson's own studies of Viollet-le-Duc's article on Construction have been allowed to fall into abeyance. Nearly all the passages cited in this Paper from Viollet-le-Duc have been from that article, and it has appeared that Mr. Bilson has not entirely grasped their significance as related to causes of subsidence and dislocation. Under these circumstances I shall take the privilege of presuming that the "misconception" is Mr. Bilson's and not mine, and of proving this to be the case. Mr. Bilson may note, first, that there are two diagrams in Viollet-le-Duc's article on Construction which include the aisle thrust in their figured lines.* Both these diagrams show it as directed toward the nave. He will also find, in the passage relating to his quoted fig. 34, that, although the direction of aisle thrust toward the nave is not figured there, it is expressly mentioned as existing and as being neutralised by the nave thrust which is figured.

The aisle thrust is, of course, really in both directions, but is so absolutely held in check by the great exterior buttresses on the outer side that its active force is exerted toward the nave. It is the undisputed doctrine of Viollet-le-Duc that the aisle thrust toward the nave is neutralised by the loading which is ultimately placed on the piers, but that it still exists as a slumbering force, tending to maintain the equilibrium of the piers, as against the reverse action of the nave thrust at a greater height. To quote the words of Viollet-le-Duc in another connection, but directly applicable here: "The thrust is neutralised, but it exists. It is overpowered, but not suppressed."

If the pier be too slender for its task, if the loading above be insufficient, if the resistance of the flying buttresses be too weak, then there are two forces working in opposite directions, which in frequent theory, and doubtless in occasional fact, produce an accidental bend or curve in the pier and vaulting shaft; toward the nave below, and away from it above. So universally are these points recognised that perhaps there is not a sceptic in the world as to the widening refinement who is not positive that these opposing forces of lower aisle thrust and higher nave thrust have produced the supposed "refinement."

Now if I produce, for example, a series of enlargements, each with its own special plumb-line,

proving that every pier on the north side at Amiens is perpendicular up to the capital, then I have proven that the bend at Amiens is not caused by aisle thrust, because in the latter case the piers would lean into the nave. Then if I prove, by another series of enlargements, also with individual plumb-lines in each special case—and confined to the section of the vaulting shaft which lies between the arcade capital and the triforium string—that the slope includes the masonry of the arcades and spandrels, that it begins at the arcade capital in every instance, and that it is uniform, within narrow variations,† on each given side of the nave for the whole side, then I have proven, in view of the uniform direction in straight lines of the inclination up to the vaulting of the nave, that the thrust of this vaulting did not cause the inclination. It is obvious that the resistance to the thrust of the nave vaulting increases in the descending line, and it is obvious that the resistance becomes practically impregnable below the triforium string, not only because the enormous weight of the aisle vaultings and arcade masonry is added to the resistance of the exterior buttresses, but also because the aisle thrust toward the nave, although neutralised in equilibrium, is still a force, "overpowered but not suppressed." So much stress does Viollet-le-Duc lay on the aisle thrust as counteracting through the loaded piers the nave thrust above, that he holds that the flying buttresses are only needed to hold up the nave vaulting in case the equilibrium between aisle thrust and nave thrust be disturbed.‡

Since the resistance to the thrust of the nave vaulting increases in the descending line, and since that resistance becomes practically impregnable below the triforium, it results that the vertical lines would bend outward above, more than they do below, even admitting that the inclination below the triforium string down to the arcade capitals had been caused by the nave vaulting thrust.

There are thus two positions involved in one in this contention. One position is that under no circumstances could we suppose at Amiens that the aisle vaultings, arcade masonry, and spandrels could either be compressed or pushed over bodily, so as to result in a practically uniform outward slope, along both sides, reaching from the capitals of the piers to the triforium string. The other position is, admitting for the sake of argument that the nave vaulting had thrust in the manner described, that it certainly would not thrust in straight lines.

When I visited Rheims in July 1907, it was not necessary even to argue these points. It was only necessary to ask MM. Margotin and Martin to sight the piers as perpendicular, by the lamp wires, to verify the existence of the slope in straight lines, as beginning against aisle thrust at the arcade capitals, and to look up at the weight of the nave

* North side, 3 $\frac{1}{2}$, 3 $\frac{3}{4}$, 4, 4, 3 $\frac{1}{2}$, 3 $\frac{1}{2}$; south side, 2 $\frac{1}{4}$, 2 $\frac{1}{2}$, 2 $\frac{3}{4}$, 2 $\frac{1}{2}$, 2 (measures from west to east).

† Passage already quoted in footnote; see page 729.

* *Duct. IV.*, page 56, fig. 32; page 74, fig. 40 *bis*.

arcades and aisle vaulting. When the enlargements were shown to the architect-inspector at Amiens we did not even walk out from the Sacristy into the Amiens nave. Neither at Rheims nor at Amiens were the measurements for widening held to be a feature of the problem by the *Inspecteur des Travaux*. The points considered were simply the slope, the point where it began, the resistance and weight at that point, and the absence of outward bend higher up. Of all the experts who have examined the new enlargements not one has contested the positions announced, and many experts have conceded them in the most outspoken and vigorous way.

Now comes Mr. Bilson, fresh from his new study of Amiens Cathedral, to say, as to the inclinations below the triforium, that he thinks there is a "misconception as to the direction of the thrusts" which might be removed by a study of fig. 34 of Viollet-le-Duc's article on Construction, and as to the straight lines: "I am not certain that Mr. Goodyear is correct in thinking that the divergences are in perfectly straight lines from the arcade capitals upward, for a comparison of his table" with his plumbings in the triforium passage shows that the inclinations are not precisely the same."

We will now test Mr. Bilson's statement that the inclinations are not precisely the same in the triforium passage and in the vaulting shafts lower down. The heights both of the triforium passage and of the vaulting shafts, from arcade capitals to string, are closely equal, being each about 24 feet. The measurements for these sections are as follows, from west to east:

North Side.	
Triforium +	3 $\frac{1}{2}$, 4 $\frac{1}{2}$, 4 $\frac{1}{2}$, 4, 3 $\frac{1}{2}$, 3
Shaft from arcade capital to string	3 $\frac{1}{2}$, 3 $\frac{1}{2}$, 4, 4, 3 $\frac{1}{2}$, 3 $\frac{1}{2}$
South Side.	
Triforium +	2 $\frac{1}{2}$, 3 $\frac{1}{2}$, 2 $\frac{1}{2}$, 2 $\frac{1}{2}$, 2 $\frac{1}{2}$, 2
Shaft from arcade capital to string	2 $\frac{1}{2}$, 2 $\frac{1}{2}$, 2 $\frac{1}{2}$, 2 $\frac{1}{2}$, 2 $\frac{1}{2}$, 2

Now what is the result of this comparison? It is that the fifth shaft, north side (5, Durand plan), is out of the straight line *one inch in 48 feet*. That is the maximum deviation from a straight line on the north side for a height of 48 feet. The corresponding pier, south side (6, Durand plan), is out of the straight line $\frac{3}{4}$ of an inch in 48 feet, and that is the maximum deviation on the south side for a height of 48 feet. Mr. Bilson certainly dies hard.

VIII.

What allowance should be made for accidental movement at Amiens? The uniform excess of

+ Page 45, Reply (page 717 of this Paper).

† The original plumbs in the triforium, with line of 15 feet, from which the measurements are figured for a height of 24 feet, are as follows (from west to east):—North side (foot decimals), 0.20, 0.25, 0.22, 0.22, 0.20, 0.15; south side (foot decimals), 0.13, 0.17, 0.13, 0.13, 0.12, 0.10.

‡ I will immediately add that I am disposed to attribute these deflections to thrust, together with all other slighter deflections in which the plumb in the triforium gives a

the divergences on the north side would suggest, at first thought, that all the excess on that side should be allowed for accident; but when we consider that the excess uniformly begins at the arcade capitals, below the triforium, and is uniformly found there, in comparing the corresponding measures for the north and south sides, then it seems necessary to admit that, for some cause or other, the Cathedral was built as we now find it in this particular.

If it could be supposed that one entire side of the nave, up to the triforium, was built before the other, the difficulty would be solved. Then it would appear that the builders had determined either to increase or diminish the divergence after one side was finished. The known general practice of cathedral building appears to forbid this solution of the difficulty, but there is one curious indication in its favour. All the vaulting shafts on the north side step forward an inch at the arcade capitals, whereas on the south side only the sixth pier (4, Durand plan) does this.* How can we imagine, if the usual method of construction by parallel bays was followed, that six vaulting shafts on the north side were stepped forward and that five on the south side were built flush with the piers? This seems incredible on the theory of parallel construction. However, if the usual habit of construction was followed, we have one difficulty to offset against another, and the uniform excess of slope on the north side has an undisputed parallel evidence of variation, in the stepping forward of the vaulting shafts on the same side.

The fact that all the piers on the north side are perpendicular, up to the arcade capitals, discards the suggestion that the excess of slope below the triforium on that side is due to leaning piers.† If we now adopt the probable supposition that thrust has caused the minor outward deflections which are shown, by the plumbs in the triforium, to be in excess of the rate of inclination below the triforium for the same side and the same vaulting shaft, these deflections can be estimated by calculating the entire inclination at the rate found below the

larger result than appears below the triforium for the same height.

* See instance of change of slope at Troyes, footnote, page 734 of this Paper.

† See page 47, first Reply, and page 727 of this Paper, footnote 2.

‡ The two piers next the crossing on the south side are perpendicular; the others lean slightly, as shown by figures in the table. Mr. Bilson makes the benevolent suggestion regarding these (page 87), "I suppose that he still contends that this slight lean is intentional." This rather superfluous nony shows a remarkable obliquity to the bearing of the argument just rehearsed. It is the demonstration that eight piers out of twelve, including all on one side, are perpendicular, which makes it certain that the inclinations of the vaulting shafts below the triforium are not due to aisle thrust. Why then should I weaken this argument by contending that four piers *lean into the nave by intention*?

triforium, and attributing the ascertained excess of actual measurement to thrust.

The following table is obtained by figuring the height of the vaulting shaft between arcade capital and triforium string (both members excluded) as 24 feet,* and by figuring the whole height of the vaulting shaft, without including capitals, at 60 feet.† Thus each photographic measure for inclination below the triforium represents $\frac{2}{3}$ or $\frac{1}{3}$ of the height of the vaulting shaft, and the inclination at the same rate for 60 feet is obtained by dividing by 2 and multiplying by 3. Thus we obtain the following :

TABLE OF ALLOWANCE FOR THRUST.

North Side.

Pier	Inclination below triforium string	Combination estimate for thrust	Total allowance for thrust
First pier (14)	$8\frac{1}{2}$	8	0
Second pier (11)	$9\frac{1}{2}$	$9\frac{1}{2}$	$\frac{1}{2}$
Third pier (9)	10	$9\frac{1}{2}$	0
Fourth pier (7)	10	$10\frac{1}{2}$	$\frac{1}{2}$
Fifth pier (5)	$9\frac{1}{2}$	11	$1\frac{1}{2}$
Sixth pier (3)	$7\frac{1}{2}$	$8\frac{1}{2}$	$\frac{1}{2}$

South Side.

Pier	Inclination below triforium string	Combination estimate for thrust	Total allowance for thrust
First pier (14)	5	5	0
Second pier (12)	$6\frac{1}{2}$	$6\frac{1}{2}$	0
Third pier (10)	$6\frac{1}{2}$	$6\frac{1}{2}-6\frac{1}{2}$	0
Fourth pier (8)	$6\frac{1}{2}$	$6\frac{1}{2}-6\frac{1}{2}+\frac{1}{2}$	0
Fifth pier (6)	$6\frac{1}{2}$	$7\frac{1}{2}-6\frac{1}{2}$	$1\frac{1}{2}$
Sixth pier (4)	$6\frac{1}{2}$	$6\frac{1}{2}$	0

TENTATIVE ESTIMATES FOR TOTAL WIDENINGS DUE TO THRUST.

11, 12	.	.	.	.	$\frac{1}{2}$ inch.
7, 8	.	.	.	.	$\frac{1}{2}$..
5, 6	.	.	.	.	3 ..
3, 4	.	.	.	.	$\frac{3}{4}$..

The allowance for maximum accidental widening at 5, 6, of 3 inches appears to be as much as is called for by the recorded and obvious dilapidations.

* Actually 23 feet 11 inches.

† Actually 61 feet.

‡ With addition of 1 inch to each combination estimate, because 1 inch was subtracted for stepping forward at the arcade caps. north side (page 727). When inclinations are compared we must begin at the same face, which is the face above the cap.

§ The 2 inches added to combination estimate for stepping back of upper vaulting shaft cannot be figured when inclinations only are compared.

|| Revised compass test on pier 10 gives $2\frac{1}{2}$ inches instead of 3.

■ Revision above reduces 7 to $6\frac{1}{2}$ inches.

** Revised compass test on pier 8 gives $2\frac{1}{2}$ inches instead of 2.

†† Revision above increases $5\frac{1}{2}$ to $6\frac{1}{2}$ inches. The revisions for total combination estimates on piers 10 and 8 do not exceed the individual estimates already given for the same piers, here repeated. Therefore these revisions cannot be objected to. Although the revisions do not affect the widening estimates, they reduce the irregularities of inclination on the south side, as regards the combination estimates, and it was the existence of these irregularities as regards a diminishing measure at 8 which led me to re-test the compass estimate.

It also appears to be as much as Mr. Bilson and M. Durand once thought necessary, for it has been twice pointed out that these dilapidations were all known to these gentlemen and had been carefully described by them when they considered the extreme widening in the nave "not appreciable to the eye . . . certainly not greater and most probably much less" than they thought it to be at the crossing, and when they thought $3\frac{1}{2}$ inches to be a correct estimate for the inclination of the south-west crossing pier.

Let us now examine the Rejoinder statement (page 90) that "no serious explanation has been vouchsafed to account for the irregularity of the backward leans at Amiens, if they are to be considered as due to intention; why the western piers are perpendicular, while the divergence reaches its maximum two bays from the west end and gradually decreases towards the crossing."

As far as the inclinations themselves are concerned, the computations based on the rate of slant below the triforium string thoroughly dispose of any objections based on "irregularity of the backward leans." The uniformity for each given side is quite remarkable, especially when it is considered that diminishing measures near the crossing and near the tower piers are also found at Rheims (where the tower piers diverge about 4 inches to a side), and are naturally to be expected at Amiens, as avoiding abrupt contrast with the tower piers and with the diminished divergence at the crossing. The diminished divergence at the Amiens crossing may be explained from the point of view which may also be suggested for the Rheims crossing, where the piers appear to be perpendicular. The Rheims crossing piers were notoriously intended to support a very lofty spire, while the crossing spire at Amiens had no such unusual projected dimensions, but was still a loading on the piers which had to be considered. As to the tower piers at Amiens they are much more slender than those at Rheims, and it was probably considered unwise to diverge them on account of the proposed but unexecuted spires. As long as Mr. Bilson does not understand why the widening refinement existed at all, it may be best for him not to try to determine how this refinement ought to have been carried out in its minor details. At all events the explanation offered in my Reply (page 35) for the perpendicular tower piers, and here in part repeated, is undoubtedly a "serious explanation," in spite of the Rejoinder statement that "no serious explanation has been vouchsafed," and the allowance just made for thrust disposes of any other objection based on irregularity of the backward leans.

In the quotation just considered the statement is made that the "divergence reaches its maximum two bays from the west end." When the inclinations are calculated from the known rate below the triforium, and when these inclinations are assumed to be those originally constructed, the maximum is reached in the centre measures on the

north side, where it also appears at Rheims, and the centre measures on the south side also approach or reach the maximum, although they are so closely uniform with the other measures that the variations are not worth discussing.

Thus the Rejoinder argues at (page 87) that the "pronounced irregularity of divergence is in itself a strong argument against intentional design" falls to pieces when tested and examined.

Mr. Bilson's ground plan for the tower piers at Amiens (fig. 7 of his Criticism) was supposed to explain, by showing the extra strength of the abutment, why the tower piers do not lean at Amiens. It now appears that the corresponding tower piers at Rheims diverge 4 inches to a side, although both the piers and the abutments are much stronger than they are at Amiens. Therefore the strength of the tower abutments at Amiens cannot be the reason why the tower piers at Amiens do not widen, although this reason is advanced by Mr. Bilson with confident assurance.

IX.

The discussion of an allowance for thrust has necessarily preceded a consideration of the Rejoinder's matter on the buttresses. The movements represented by the allowances just made for thrust must have affected the buttresses, but that part of the Rejoinder which relates to them (page 88) is so wholly void of estimates or measures, and so utterly vague in purport and substance, that it may be dismissed without shrift. First, as to recent repairs of the buttresses, which are quoted by the Rejoinder as being indicated by recent dates carved up in them (from the forties of the nineteenth century) or as instanced for the repairs of 1895-6. Is it not clear that such recent repairs have no bearing on the controversy? They have no bearing, because there would be no controversy if such repairs had any relation to the recently accepted, but previously unknown, measures for the widening. If, for instance, damages had been repaired on the buttress *3a, b* (mentioned by the Rejoinder, page 88) during the nineteenth century, and if these damages represented $7\frac{1}{2}$ inches movement from thrust, everyone would already have known what has actually only been learned from the recently accepted measurements. All appeals to recent repairs are, on the face of things, inadequate to account for facts known now which were not known when those repairs were made.

On the other hand, when the question of ancient buttress repairs is examined, the records are found to be vague and indefinite, for it is certain that M. Durand's book has given all the information obtainable from them. The higher main buttresses above the aisle roofs, the pinnacles and the flying buttresses, have been more exposed to decay and disintegration from weathering than any other parts of the building, and unusually early and extensive repairs of these parts of Amiens Cathedral

are to be taken for granted. The presumption that repairs to a buttress necessarily imply vaulting thrust, and that they do not have been called for by weathering, is the basic premise of Mr. Bilson's consequently listed list of buttress repairs. His only even approximately pertinent remarks on this subject relate to the flying buttresses. But when he speaks of joints which have been "pointed up" in flying buttresses, it is evident that he is alluding to the use of cement in temporary service if the flying buttress had lifted upward. If it did not lift upward the matter would not be worth talking about; it would then be an ordinary mason's repair of defects in masonry. The allowances made for thrust show, however, that repairs for damage caused by thrust may have been called for in *11a, b*; *7a, b*; *5a, c*; *3a, b*, and *6a, c*. The flying buttress *3a, c*, is the only one specifically mentioned by the Rejoinder.

Of course the Rejoinder does not tell us how the repairs already known will account for the recently accepted widenings which have not been known: and this is all we really want to know.

X.

The Rejoinder concludes with the anticipatory warning that "it will not do to argue that part of the deflection may be due to intention and part to movement."

Somewhat aghast at such a veto on this apparently innocent proceeding we are led to inquire the reason and to give it all possible prominence. Mr. Bilson's reason is as follows: "At the east end of the nave, where the deflection is least, the cracks in the structure prove that the deflection is due to movement." Mr. Bilson's closing appeal is thus to the cracks "at the east end of the nave," and is thus, presumably, to those described and illustrated in his first Criticism,† aside from the transept cracks illustrated by the opening figure of his Rejoinder and already debated in this Reply. Some brief notice of Mr. Bilson's argument about the vaulting at the crossing and of his related diagram and photograph will be found in a footnote at p. 720. Fig. 14 repeats the plan of the crossing vault, from fig. 4 of the original Criticism, and illustrates this footnote.

In its final remarks (page 90) the Rejoinder also refuses to believe "that the builders of the great French cathedrals ever built their piers with a backward lean in the direction of the thrust—a procedure directly opposed to the principles which

† Does this possibly relate to cracks at the east end of the nave, otherwise not mentioned by Mr. Bilson and here not specified by him, viz. those catalogued by M. Durand at 13, 15; 14, 16 (*Monographie*, I, 61)? If so, the matter would be covered by the unequal and greater subsidence of the crossing piers, as already discussed for the transepts. It is to be presumed, however, that the reference is to the crossing itself, to the cracks in the ceiling of its vaulting, and possibly to the transept cracks.

‡ Pages 409, 410, 411, 414; pgs. 4, 5.

controlled their structural design, where all their efforts were concentrated on the problem of successfully counteracting thrust." This passage seems to suggest that the equilibrium of the Cathedral of Amiens would be disturbed if piers of 7 feet diameter were sloped 1 foot or less.* It is apparent that the centre of gravity of the pier would not be affected by such a slope, and that the equilibrium of the building would consequently not be affected by it.

It only remains to consider M. Enlart's entry into this controversy, as represented by his letter published in the *JOURNAL R.I.B.A.* (21st December 1907). This letter expresses the opinion that the "known history" of the Cathedral of Amiens con-

3½ inches. How can it be, therefore, that this "known history" of the Cathedral explains a maximum widening in the nave of nearly six times that amount, which is now admitted to exist and which was previously unknown to anyone? By this appeal to the "known history" of the church, M. Enlart has placed himself in the same dilemma in which Mr. Bilson and M. Durand find themselves.

If I have several times alluded to this dilemma, it is not to ridicule or criticize Mr. Bilson or his friends for not having perceived this widening. They have only shared the ignorance of their century. The optical effects of convergence in perspective have concealed the true widening from most eyes, and it is quite possible that one main purpose of the widening was to counteract this perspective convergence. The dilemma is, however, a serious one, because it is not likely that M. Durand's excellent history can be improved, unless this history were to include the refinement which M. Enlart refuses to admit as existing.

Thus M. Enlart, like Mr. Bilson in the concluding paragraph of his Criticism, p. 417, has staked his argument on the thesis that M. Durand's book supplies all the evidence needed to disprove the existence of a widening refinement at Amiens. The Reply which I now conclude meets and disputes this thesis, step by step. The arguments based on M. Durand's book have proved to be flimsy and shallow, and often inept and wholly irrelevant. It is quite natural that they should be infirm, for the book was written in ignorance of the true widening in the nave, and consequently in ignorance of the remarkable manner in which it is constructed.

Thus my reply to Mr. Bilson's Rejoinder also furnishes a very sufficient answer to M. Enlart's reference to the "known history" of the church.

As for M. Enlart's suggestion that a simple examination of the building, without reference to its history, is sufficient to contradict my conclusions, it betrays a touching confidence in the unassisted human eye which this research may ultimately tend to materially weaken in the opinion of the expert world in general, if not in that of M. Enlart. I submit that this examination cannot be carried out at Amiens by the eye, unassisted by plumb-lines, and that Amiens does not possess the natural advantages which are offered, in this particular, by the nave at Rheims.

It is therefore desirable, at present, that an expert who undertakes to pass an opinion on the given question for Amiens Cathedral should be familiar with the building *as it has recently been photographed*, and that he should not reject, or at least not without examination, the evidence which these photographs have furnished.

Note.—At present the Amiens transepts are represented by twenty-four new enlargements revealing unpublished facts of the most extraordinary significance for the general argument, but it is naturally impossible, for lack of space, to discuss or illustrate them in this Paper. As for the responds of the aisles, including those of the choir, they

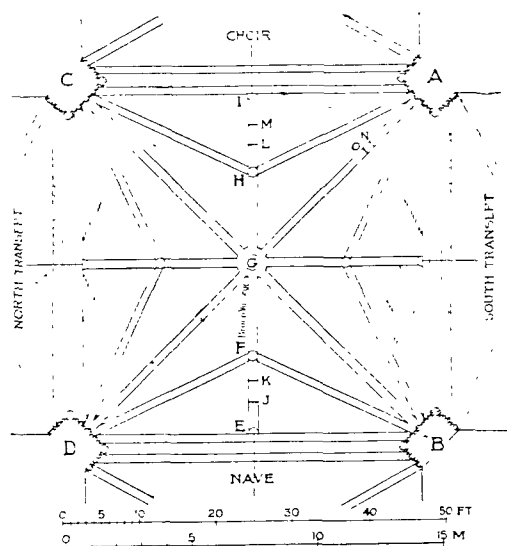


FIG. 14.—PLAN OF NAVE OF CROSSING.

tradicts my conclusions, "supposing even that an examination of the building does not."†

To this opinion I offer the following objections: The history of this Cathedral has been faithfully recited by M. Durand, and this recital has been faithfully republished by Mr. Bilson, in all points supposed to bear on this controversy. The history of the dilapidations of the Cathedral has not been enlarged or supplemented in any material manner during this controversy. When the controversy opened, the history of these dilapidations was supposed to explain an accidental widening in the nave which was held to be "certainly not greater, and most probably much less" than would be called for by an under-estimate for the south-western crossing pier, which figured its recession at

* The measure of 7 feet diameter does not include the base or the base mouldings.

† "En aucun cas je ne saurais admettre la manière de voir de mon ami M. Goodenar au sujet de l'église de Saint-Quentin et de la Cathédrale d'Amiens, dont l'histoire est connue, et contredirait ses conclusions, à supposer que l'examen seul de ces églises n'y suffise pas."

are now known to resemble those of Reims Cathedral, as published by me in the *Revue de l'Art Chrétien* for July 1908. I formerly announced (page 124, Edinburgh Cathedral) that three out of fourteen responds in the aisles of the nave had no inclination, and Mr. Bilson agreed in consequence that vaulting thrust had produced the other eleven recessions (page 416, *Cathedralism*). Improved methods of observation have proved that the supposed exceptions do not exist. The uniform and delicate inclination of the aisle responds is one of the most remarkable facts at Amiens, and of special interest as establishing a parallel with so many other churches in which the same aisle-system is traced, and where the inequality of the settlements in many of the responds is not noticed.

Mr. Bilson, to whom an advance proof of the foregoing Paper had been sent, replies:—

AMIENS CATHEDRAL.

There are many things in Mr. Goodyear's article to which I should be tempted to reply at length were I not convinced that no useful purpose would be served by prolonging this discussion indefinitely. I propose only to make a few remarks bearing on the essential points at issue between us.

If I understand Mr. Goodyear correctly, he admits that whatever buckling there is in the piers of the crossing is accidental, and that the slight inward lean of some of the arcade piers on the south side of the nave is also accidental. With regard to the outward divergence of the piers of the nave and crossing, from the level of the capitals of the arcade piers up to the level of the capitals of the vaulting-shafts—a height of 61 feet—Mr. Goodyear's figures are as follows: north side, 5 inches at the crossing, increasing to 11 inches at pier 5, decreasing to 8½ inches at pier 3, and to nil at the western pier (1) which is vertical; south side, 5 inches at the crossing, increasing to 6½–7½ inches at pier 6, 6½ inches at pier 4, and nil at the western pier (2) which is vertical. He then makes some small deductions for divergence due to thrust, and he thus arrives at the net divergence which he believes to be intentional, varying from 5 to 10 inches on the north side, and from 5 to about 6½ inches on the south side [see table, p. 737 *ante*]. Except as regards the crossing piers, Mr. Goodyear has not yet offered any explanation of the irregularity of these divergences, if they are to be considered as due to intention. This irregularity is perfectly intelligible if, as I hold is proved by the condition of the structure, the whole divergence is due to accidental movement, and the pronounced indications of movement in the western bays can only be connected with the quick return to the vertical at the western piers 1 and 2 from a divergence of 11 inches on the north side and some 7 inches on the south side, at a distance of two bays further east. Mr. Goodyear, however, attributes these indications chiefly to settlement, resulting from compression of the mortar beds. That some

movement has occurred which is due to this cause is undeniably, but it is quite insufficient to account for the visible indications of lateral movement. Mr. Goodyear's statement in this connection (*ante*, p. 724), that the piers 3 and 4 have settled more than the piers 1 and 2, is proved to be incorrect by the levels of and cracks in the parapet of the triforium of the western bay. On the south side, at the crack in bay 2, 4, the top of the stone to the west of the crack is ¼ inch below the top of the stone to the east of it, and the level of the top of the parapet at the east end of this bay is 1½ inch above that at the west end. On the north side, in the bay 1, 3, the level of the top of the parapet at the east end of this bay is 3 inches above that at the west end. These facts prove that the western piers 1 and 2 have settled more than the piers 3 and 4, and not the contrary as Mr. Goodyear asserts.

Mr. Goodyear's argument in favour of intention for these divergences really amounts to this: that if they were accidental, the evidence afforded by the present condition of the structure would be quite different from what it actually is, that if, for instance, there is a difference of divergence of 3 inches in two adjoining vaulting-shafts, *transverse* fractures amounting to 3 inches should be visible. His ideas on this point may safely be left to the judgment of those who have studied the effects of movement in similar structures, and they are emphatically contradicted by what has actually happened in cases where such divergences are uncontestedly due to accidental movement alone. At the Avallon meeting of the *Société Française d'Archéologie* in 1907, M. Lefèvre-Pontalis called attention to instances in Burgundian churches where the thrust of the vaults was not originally at any rate abutted by flying buttresses. I have already mentioned two cases,* and that of the eastern aisle of the south transept of Beverley Minster (c. 1240) is very much to the point. Here the bays are about 16 feet in width, and the divergence of the wall from the vertical at successive vaulting-shafts, ascertained by actual plumbings, is 1 inch, 8½ inches, 7½ inches, and 1½ inches in a height of 21 feet. The divergences are consequently of greater comparative extent than those at Amiens, but the indications of movement in the structure are precisely analogous to those visible in the nave of Amiens, and not in the least like what Mr. Goodyear's ideas would involve.

Mr. Goodyear considers that he has proved that the divergences from the vertical at Amiens are for the most part due to intention. I hold that the condition of the structure proves that they are due to accidental movement only. The facts have been set fully before our readers, who are in a position to form their own conclusions upon them.

JOHN BILSON.

* JOURNAL R.I.B.A. 3rd Ser., XIII., 404, note ‡.

THE LATE M. AUGUSTE CHOISY

[Hon. Corr. M.].

It is with very sincere regret that we have to record the sudden death, at the age of sixty-eight, of M. Auguste Choisy, the distinguished architectural historian to whom the Royal Gold Medal was accorded by the Institute in 1904. M. Choisy was the son of an architect at Vitry-le-François (Marne), where he was born on 17th February 1841, and his early interest in our craft was probably derived from his father. The statement, however, which he made on the occasion of the presentation of the Gold Medal, to the effect that when quite a youth and looking through his father's library he came across a copy of the TRANSACTIONS of the Institute of 1842 in which he read Professor Willis's Paper on the Vaults of the Middle Ages, constitutes a memorable incident in the annals of our Institute. As M. Choisy said, the Paper was a revelation to him, in that it showed how forms ought to be analysed, and how drawings ought to show clearly the structure. When he commenced his studies of the Roman methods of building Professor Willis's disquisition was ever present to him as the best model to be followed, distinguishing at once the commencement and the conclusion of architectural criticism.

M. Choisy's studies were commenced in the École Polytechnique, where he had the advantage of following the lectures given by the eminent professor, M. Léonce Reynaud, whose *Traité d'Architecture*, in two folio volumes, illustrated with fine engravings, still forms the standard work of reference in all the French schools. His career in the École Polytechnique enabled M. Choisy to enter, in 1863, the "École des Ponts et Chaussées," an institution of which we have no parallel in England. In the following seven years he would seem to have been able to travel in various parts of Europe, and it was during this period that he conceived the idea of making a minute analysis of Roman construction. I met him as a stranger in Athens in August of 1866 when measuring the plan of the theatre of Bacchus, and was astonished at the exceptional knowledge he seemed to possess of the buildings of the Acropolis. Subsequently I was introduced to him at the French School in Athens, and in my diary placed a record to that effect, and also that he had written many essays on archaeological subjects which had received the approval of the Institute of France. His first important work, *L'Art de bâtir chez les Romains*, was not published before 1873, but already, in 1868 or 1869, he must have made some progress with it, because in M. Viollet-le-Duc's *Dictionnaire Raisonné*, under the article "Voûte," p. 477, vol. ix., is a note by the author stating that a young French engineer, M. Choisy, would publish shortly a very complete work on the structure of the Roman vaults, which had been lent him to read, and in which a

detailed description would be given of the various methods employed by their great builders, demonstrating by the clearest arguments that economy in expense was one of their principal considerations. The publication of this work was apparently deferred on account of the Franco-German war, which paralysed everything in France. Its great importance, however, resulted in a recommendation, which was made by his former professor, M. Léonce Reynaud, and by M. Viollet-le-Duc, that he should be sent on a mission to the East to study the buildings of the Byzantine Empire, and in 1882 M. Choisy published his second great work, *L'Art de bâtir chez les Byzantins*. It was about this time that, on the recommendation of his friend and comrade M. Ferdinand de Darstein, Professor of Architectural History in the École Polytechnique, and author of the magnificent work of S. Ambrogio, Milan, he was brought into the educational section of that institution and was appointed "Professor adjoint." The courses of lectures which he delivered to the students would seem to have led to his third great work, viz. *L'Histoire de l'Architecture*, published in 1899. Within the compass of two octavo volumes M. Choisy has condensed that which might easily be expanded into twenty; but in the descriptions which he gives and the drawings with which the work is illustrated his object would seem to have been to use the fewest words and the least number of lines. All the drawings were made by him, a great number of them being in isometrical projection, the most difficult type of representation, and one which requires a profound mathematical knowledge. In 1883, shortly after his appointment as professor, M. Choisy published another work, which is less known, viz. *Études épigraphiques sur l'Architecture grecque*: these studies include a translation of the specification of the work still required to complete the Erechtheum, and also a translation of the specification of the Arsenal of the Piræus which was found in 1882 engraved on a slab of Hymettian marble. The description given was so clear that, although the building was destroyed in 86 B.C., M. Choisy was able to work out plans, sections, and elevations of the arsenal, and these are published in his work. In 1904 he published his last work, *L'Art de bâtir chez les Égyptiens*, which was reviewed in this JOURNAL in January of that year. It was in this year that M. Choisy retired from his work in the École des Ponts et Chaussées and the École Polytechnique, intending to devote the remainder of his life to a work on Vitruvius. When I saw him last, in August 1904, he said it would take at least a year and a half to make the drawings and annotate the descriptions given by Vitruvius. That is now five years ago, so that he had apparently found the task to be one of greater difficulty than he had anticipated. It is to be hoped, however, that sufficient progress has already been made with it to

warrant its publication, to which we should all look forward with the greatest possible interest. I have only two other tributes to record to his memory: the first is that his greatest work, *The History of Architecture*, has now become an authority constantly referred to in all works on similar subjects, not only in France, but in England, America, and Germany; and the second, that he was always ready at any time to answer communications made to him on various subjects; and his replies were always of the kindest description, for if he differed widely from the views of his correspondent he always managed in his answers to elude the differences and to encourage him in his researches.

R. PHENE SPIERS, F.S.A. [F.]

DU CERCEAU AND DE L'ORME.

To the Editor JOURNAL R.I.B.A.,—

SIR,—Several interesting problems are suggested by Mr. John W. Simpson in his most generous and sympathetic review of "French Châteaux and Gardens of the Sixteenth Century" in your issue of Aug. 28. In most cases no data, I fear, exist for a solution of them. But some slight ground may perhaps be found for an affirmative reply to his query, "Did Catharine de Médicis hand over the designs of De l'Orme to Du Cerceau after the former died in 1570?" in the fact that among Du Cerceau's published or unpublished works there are drawings referring to at least two other buildings on which De l'Orme was employed as architect by Catharine, and illustrating unexecuted or only partly executed designs of his, i.e. the châteaux of Chenonceaux and St. Maur-les-Fossés. Catharine, having acquired the former in exchange for Chaumont from her rival Diane de Poitiers after Henry II.'s death, intended, as Du Cerceau informs us, to extend it considerably. The plans for this extension are in the British Museum collection and are engraved in a reduced and slightly modified form in "Les Plus Excellents Bastiments de France." They include an elliptical hall at the further end of the bridge gallery; a stately court of honour before the château with a hemicycle on either side, each leading to what appears to be a sort of nymphaeum; and a great fore-court, whose sides converge towards the castle. A fragment of one of these sides is the only part of this scheme in existence. As regards St. Maur its history is given in "French Châteaux," and I need not repeat it here.

It is curious, however, that Catharine should have handed over De l'Orme's drawings to Du Cerceau rather than to Jean Bullant, who succeeded the former as her architect, unless indeed she did so with the express object of their being utilised in the book he was preparing under her patronage. Why, then, did he not reproduce some of the most interesting of the designs after having gone to the trouble of making elaborate drawings from them?

I can offer no answer to the question except to be suggest that in the case of the Tuileries Catharine may not have relished seeing great prominence given to a noble scheme whose abandonment two years after De l'Orme's death was caused by her pusillanimous credulity.

Since there is no evidence that De l'Orme and Du Cerceau were on terms of friendship, though they can scarcely have failed to be acquainted, it is not likely that the former gave his drawings to the latter. But De l'Orme having no professional heirs his papers may have been sold to Du Cerceau: in that case, however, he might be expected to betray a knowledge of De l'Orme's works for his non-royal clients, such as the château of Meudon for the Cardinal of Lorraine. On the whole the theory that he got them from the Queen-Mother seems to fit the facts best.

Yours faithfully,

7th September, 1909. W. H. WARD, M.A. [L.]

THE R.I.B.A. SCALE OF CHARGES.

To the Editor JOURNAL R.I.B.A.,—

SIR,—In the issue of the JOURNAL dated the 24th July 1909 Mr. Henry W. Burrows solicited information as to whether an architect could, under the Institute Scale of Charges, charge more than 5 per cent. where the works involved structural alterations and exceeded the sum of £1,000 in amount. I think Mr. Burrows might, as a good many other members of the Institute do, ask a good many questions concerning the Institute Scale of Charges, which require clearing up and rendering definite in a variety of particulars. Take, for instance, paragraph 3: "In all works of less cost than £1,000, &c., &c., 5 per cent. is not remunerative, and the architect's charge is regulated by special circumstances and conditions." Let it be assumed, therefore, that under such circumstances a charge of, say, 10 per cent. would be remunerative, how does such a charge work out in practice? A contract is entered into involving an outlay of, say, £950, and the architect would in due course charge the sum of £95 for his professional services rendered. But the client in course of the work orders an additional outlay of £100, making a total outlay of £1,050, whereupon, referring to the Institute Scale, the architect—who is always considered to be a person void of emotion—finds that 5 per cent. under such circumstances is remunerative, although he knows that it is not, and his charge in consequence will be reduced to the magnificent sum of £52 10s. So the absurd position arises that if he carries out work to the extent of £950, the amount originally intended, he will be paid the sum of £95, and if he supervises a further outlay of £100 he will receive the sum of £52 10s.—in other words, incur a loss of £42 10s. for his additional service. Then, again, under clause 3: "In all works of less cost than £1,000, and in cases of alterations and addi-

tions to buildings, 5 per cent. is not remunerative." Well, what is remunerative? Why not clear up the point? why leave the individual practitioner in the air, judge and jury in the air, and the client in the air, seeking *terra firma* also? This part of paragraph 3, "structural alterations and additions to old buildings," is most unsatisfactory. Then, again, paragraph 5: "If the architect should have drawn out the approved design, with plans, elevations, sections, and specification, the charge is 2½ per cent. upon the estimated cost. If he should have procured tenders in accordance with the instruction of his employer the charge is ½ per cent. in addition." Quite so; but suppose if in addition the architect has prepared the whole of the working drawings and details, what charge is he to make? The Institute Schedule is quite silent upon the point, but in Hurst's *Architectural Surveyor's Handbook* the charge for "working and detail drawings" is given at 1¼ per cent. I have a case occurring on this point at the present moment, and I must say that when one comes to justify one's position by the Institute Schedule you feel that unpleasant sensation of being left in the lurch.

Once more, the discrepancies in tendering have now become so great as to almost amount to robbing the architect of his remuneration. Just to look, for instance, at the following tenders received, omitting the odd figures: £3,600, £3,500, £3,100, £2,900, and £2,800. Nearly the whole of this work was structural alterations, involving considerable responsibility. I have had to lose one-third of fees in consequence of the discrepancy in the lowest tender by this reckless tendering, and being structural alterations in addition it involved a double loss. Here are another set of tenders received, the works not being proceeded with, all the details having been prepared of an elaborate character: £1,500, £1,450, and the lowest £1,150, involving again a loss of 25 per cent. to the architect and not a little disputation because the Institute Schedule is so indefinite.

I have also known cases where an architect, suing for his fees in the High Court, and the not unusual counterclaim of damages for professional negligence having been set up, found to his astonishment that four or five Fellows of the Institute put in an appearance on behalf of the defendants. Ultimately in the cases I have referred to the counterclaims for damages for negligence were withdrawn in writing: so what on earth were those architects, outside the somewhat sordid level of giving bread-and-butter evidence, going to oppose in Court? Apparently the Institute Schedule. Surely all members of the Institute should be called upon to support the Institute Schedule of Charges when it has been made sufficiently definite and clear upon all points to enable them to do so.

Building has been growing in complexity for some time past, and an architect is obliged to have more than one contractor to carry out the work, calling

in the services of several sub-contractors, which means obtaining separate estimates, separate contracts, certificates, and sets of accounts, so that the old 5 per cent. charge for remuneration has for some time past ceased to be remunerative. I therefore suggest that the Institute Schedule should be amended and that for all new buildings and works the scale charge for the first £1,000 should be 10 per cent. for the first £500 and 7½ per cent. for the second, and for the second £1,000 and subsequently 6 per cent. throughout: that for all structural alterations and additions the charge should be uniformly 10 per cent.; and for all working drawings and details 1½ per cent., leaving the balance of the percentage for supervision. Apologising for troubling you at such length,

Yours faithfully,

Kensington: September 1909.

A FELLOW.

CASTS AT THE BRITISH MUSEUM:

Sarcophagus of Alexander Severus.

To the Editor JOURNAL R.I.B.A.,—

SIR,—In reference to the quotation from *The Times*, on page 703 of the JOURNAL, throwing doubt on the connection between the Portland vase and the sarcophagus of Alexander Severus, is the writer aware that Piranesi, in Plate XXXV. of Vol. II. of the *Antichita Romane*, plainly shows the vase in the sarcophagus (Urna) and describes it as "*trovato colle ceneri dentro Urna*"? This is a good deal later than "the sixteenth century," and Chambers states that the vase was found in the sarcophagus between 1623 and 1644.

I am not well acquainted with the controversy, but understood that, while the identity of the sarcophagus with Alexander Severus was uncertain, there was no doubt about its connection with the vase.—Yours faithfully,

R. LANGTON COLE [F].

REVIEWS.

CHEMISTRY OF BUILDING MATERIALS.

Introduction to the Chemistry and Physics of Building Materials. By Alan E. Munby, M.A. Cantab. So. Lond. 1909. 6s. net. [Archibald Constable & Co., Ltd.]

The aim of the volume is, according to the preface, "to enable anyone with no knowledge of natural science whatever to appreciate something of the chemical and physical principles which underlie the use of building materials. The first part of the book endeavours to explain the principles of chemistry, physics, and geology . . . directly applicable to the production, use, and decay of materials, while in the second part, which comprises more than two-thirds of the volume, these principles are applied to the study of stones, brick clays, limes and cements,

the metals, timber, and paint." It will be seen that the author covers a wide field in a small space, and it may be said at once that, whilst the whole of the book is pleasantly written in popular language, the value of different portions is very unequal. In the first or scientific part general principles are explained and units defined in a lucid and interesting manner, though perhaps it might have been more strongly emphasised that many of the statements are of necessity mere generalisations which cannot be applied to particular cases without qualification. On the other hand, unnecessary caution is sometimes shown, as in the statement that hydrogen is *almost* the lightest substance known. In the section on Heat no mention is made by name of the British thermal unit, largely used in this country. The value of the unit of time, or second, might have been referred to the length of a standard pendulum. The author is to be congratulated on his courage in coining the word "ferra" for ferric oxide, though it is doubtful whether this term will find general acceptance.

In the second or technical part is given a general description of the chief materials of construction and of the tests commonly applied. Stones, cements, and timber are well treated, but the sections on metallurgy, oils, and pigments are of less value. Thus the general outline of operations on p. 229 does not apply to copper or to many other metals. The winning of aluminium is not as simple as described, and there are other minor misstatements, *e.g.* as to the effect of antimony and phosphorus on copper. Boiled oil is a partially oxidised body, not an oil freed from its more volatile constituents; lac as such is not soluble in water, although it contains a soluble pigment. The use of galvanised iron should have been mentioned. The brief descriptions of analytical processes in these sections, as well as in that dealing with water, might have been omitted, and the space so gained devoted to a more detailed discussion of the meaning of analytical results supplied by experts.

The book is well printed and contains a good index. Few misprints have been noticed: site on p. 135, extention on p. 273, ductible on p. 265, chal(e)copyrite on p. 250, Hamp (e) on p. 254, and Bauerchinger both in the text and index.

A. G. LEVY, B.Sc (Lond.), F.I.C.

VALUATIONS.

Valuation of Real Property: A Guide to the Principles of Valuation of Land and Buildings, &c., for various Purposes. By Clarence A. Webb, F.A.S.I. 8vo. Lond. 1909. Price 7s. 6d. net. [Crosby Lockwood & Son, 7 Stationers' Hall Court, E.C.]

This book is, as its preface states, intended to convey a general knowledge of the principles and practice of the valuation of real property for various purposes, and to be used as a text-book by students. The ground covered is thus very wide, and, as the body of the book does not extend to 300 pages, and

includes a good many examples of actual valuations given at full length, as well as some useful tables, compression has been unavoidable. From this cause, and perhaps also, to some extent, from the difficulty, so generally felt by an expert, as to how elementary he should make his earlier chapters, there is rather less explanation of first principles than to some may seem desirable in a book for beginners. On the other hand, it is probably safe to assume that this unattractive subject is only seriously taken up by the student after he has had considerable general experience and has picked up enough fragments of knowledge to be able to start at the point selected by the author.

In the chapter upon "Principles" will be found, among other things, notes upon valuations of agricultural and building land, ground and rack rents, houses and cottages, public-houses, &c., illustrated by cases given in detail. There are also tables showing the yield per cent. derived from investments in Consols and ground rents respectively at the actual average market prices for each year from 1892 to 1908.

In the chapter on "Value of Land and Buildings Separately" is repeated, without more comment than is supplied by the other figures in the table, the statement that the actual cost of a cottage with four rooms and scullery, built with 9-inch walls rough-cast and whitewashed and with tiled roof, was, at Letchworth, in 1905, 3½/7. per cube foot—£150 per cottage. To say the least, this is misleading to a beginner, as is the statement, on page 21, that the cost of a building "may generally be taken at ten times its rack rental." There should be some hint that even erections of the quality sometimes called "garden city building" can scarcely be put up at these figures now.

The chapter upon the Finance Bill 1909 will have its value reduced by the considerable alterations made in the Bill since the book went to press.

The ruling considerations in valuation for mortgage, compensation for compulsory purchase, and other purposes are clearly stated, and the book as a whole is a desirable addition to the list of textbooks.

MATR. GARBUTT [F.I.C.]

New Books.

Mr. Batsford's autumn announcements include:—

Windows, a Book about Stained and Painted Glass, by Lewis F. Day. (3rd edition.)

Nature and Ornament, by Lewis F. Day. Part II., dealing with Ornament, the finished product of Nature.

English Furniture and Decoration from 1680-1800, by G. M. Ellwood

The Growth of the English House: a short History of its Architectural Development from 1100-1800, by J. Alfred Gough, F.S.A.

English Leadwork, its Art and History, by Lawrence Weaver, F.S.A.

Modern Cabinet Work: Furniture and Fittings, by Percy A. Wells and J. Hooper.



9 CONDUIT STREET, LONDON, W., 25th September 1909.

CHRONICLE.

Sessional Programme, 1909-10.

The following is the programme for the Institute Sessional Meetings 1909-10:—

- Nov. 1.—President's Opening Address; Presentation of the Royal Gold Medal to Dr. Arthur John Evans, F.R.S.; Address by Dr. Evans on Recent Discoveries in Crete.
- Nov. 15.—"The Planning and Laying Out of Public Places." By H. Inigo Triggs [A.].
- Nov. 29.—Business Meeting.
- Dec. 13.—"Architectural Education in America." By A. D. F. Hamlin, A.M. (Columbia University).
- Jan. 3, 1910.—Business Meeting.
- Jan. 17.—"Carr of York." By S. D. Kitson, M.A. Cantab. [F.]. Award of Prizes and Studentships.
- Jan. 31.—President's Address to Students; Presentation of Prizes.
- Feb. 14.—"George Frederick Bodley." By Edward Warren, F.S.A. [F.].
- Feb. 28.—Business Meeting; Election of Royal Gold Medallist.
- Mar. 14.—"The Business Side of Architecture." By A. A. Hudson, Barrister-at-Law [H.1.].
- Apr. 4.—"The Architecture of Adventure." By Professor W. R. Lethaby [F.].
- Apr. 18.—"Architecture of the Balkan States." By George Hubbard, F.S.A. [F.].
- May 2.—Annual General Meeting.
- May 23.—Paper. (Subject to be announced.)
- June 6.—Business Meeting: Annual Elections.
- June 20.—Presentation of the Royal Gold Medal.

The School of Civic Design, University of Liverpool.

The School of Civic Design which has been established as a Department of the School of Architecture in the University of Liverpool has issued the Prospectus for its first Session, which opens on the 5th October. The Prospectus, uniform in all respects with that of the School of Architecture noticed in the last number of the JOURNAL, is embellished with illustrations in half-tone and colour-reproduced from some beautiful drawings by the Professor of the School, Mr. S. D. Adshead [F.]. The frontispiece presents a plan and perspective view showing the improvements to the British Museum

main front designed by Mr. J. J. Burnet, A.R.S.A., together with the new approach from the north. The drawing includes also Professor Adshead's suggested improvement of the Museum approaches from the south. Here are shown St. George's Church preserved and the main axis of the Museum maintained by a new street 100 feet in width and axial with Waterloo Bridge. The junction of roads at the head of Shaftesbury Avenue, Holborn, and Hart Street is shown greatly improved. The other illustrations consist of a suggested and most desirable Marble Arch Improvement Scheme; a bird's-eye view, printed in colours, of a proposal for the laying-out of St. Michael's and Fulwood Park, Liverpool; and a plan for the treatment of some vacant land in the same neighbourhood.

Particulars of the courses of study open to students in the new School will be given in the forthcoming issue of the R.I.B.A. KALENDAR. Meanwhile some extracts from Professor Adshead's Introduction to the Prospectus may usefully be given here:—

Town Planning, although intimately connected with Architecture and Engineering, is a distinct and separate study in itself, and the primary object of the School is to equip Architects, Engineers, and others with a knowledge of the supplementary subjects which Town Planning connotes and to enable them to occupy with credit those advisory and permanent positions which must necessarily be created as legislation affecting civic development and extension becomes increasingly efficient.

The rapid growth of cities in the immediate past and the inadequacy of statutory powers to control their extension have resulted in overcrowding, street malformation, and general congestion. Large estates, situated on the confines of cities, have gradually been absorbed, cut up and sold in small plots, and this, accompanied as it has been by an increasing tendency on the part of the new owners towards individualistic expression, has produced æsthetic confusion and general disorder. During recent years there has been a universal awakening to the necessity for co-ordinate action between property owners and municipal authorities to remedy existing defects and to prevent further excesses; and, as a result, in Germany there now exists powerful statutory control over building areas. The municipal authorities in Germany have vested in them powers which enable them to exercise complete control over the direction of all new streets, parks, and public places; to limit the height of buildings, and to define the proportions that shall obtain between built-up areas and open spaces.

In this country we have at the present moment before Parliament a Bill empowering local authorities to control the laying-out of new streets and building areas. The procedure under this Act will be as follows:—

The Borough or Urban District Council or other local authority will in the first place be required to show the Local Government Board a *prima facie* case for making a building plan, or in certain cases the Local Government Board will instruct such body to make a plan; or, in the event of a satisfactory plan being made by a private party representing ownership, the Local Government Board may call upon the Local Authority to be responsible for the carrying-out of such plan. But whether the plan be made by a local authority or by a private party it is obvious that either must call in such professional assistance as may to them seem fit.

Referring to procedure in Germany we find that engaged in making the Town Plan there is, in the first place, the

municipal architect, specially trained for this work; and associated with him are the municipal engineer and statistician, an official who in many ways corresponds to our medical officer of health. There is no doubt that in the making of the Town Plan in this country a similar representation will act. It is the aim of the School to equip architects, engineers, and others with the qualifications required for such work.

Whilst a Town Plan may be laid out with well-directed and sufficiently spacious roadways, well-disposed parks and parkways, and well-distributed classes of buildings, it will entirely fail unless its masses and units are considered from the point of view of elevation as well as plan. In the realisation of a Town Plan it is the complete effect of the architecture rather than the mere plan that influences the citizen. Not is it sufficient that the individual buildings excel in architectural merit; they must bear a well-considered relationship to one another. The Town Planning Bill and existing Parliamentary and Local Acts have very little practical bearing on this side of the question. Whilst there is danger in statutory control of elevation, both in view of the discouraging effect it might have on private enterprise, and also on account of the difficulties attending the expression of official opinion in matters relating to taste and style, still this in no way detracts from the importance of the fact that a co-ordination of parts is absolutely essential to complete success. The establishment of a Ministry of Fine Arts or other corporate body empowered to control the æsthetics of cities is an item in the legislative programme of the future which it is to be hoped will very shortly receive attention. In the meantime it behoves those of us who are entrusted with private undertakings and also those municipal officials and students who may occupy official positions, upon whom in their advisory capacity so much depends, to take up the definite study of Civic Design. It is necessary not only to master the practical difficulties involved in the making of the statutory Town Plan, but also to be able to apply those principles which directly control the æsthetic aspects of the city and its suburbs, fully realising their completed effect.

In the organisation of the School and in the training of students the courses will consist of lectures and studio work. The lecture courses will be arranged under the following heads:—Civic Development, Engineering, Law, Architecture, Decoration, Landscape Design. On the Staff as Instructors and Lecturers the School has been fortunate in obtaining the services of the present Lord Mayor of Liverpool, Mr. H. C. Dowdall, Barrister-at-Law; Professor Brodie, Municipal Engineer to the Corporation of Liverpool; Professor Hope, the Medical Officer of Health; and Mr. Thomas-Mawson, Landscape Architect.

The School is intimately connected with the School of Architecture, of which it forms a Department, and the students of both Schools will pursue their studies together in the same studio. This arrangement will, it is anticipated, tend to exercise a beneficial influence on both. The system of teaching in the School of Architecture is based upon that of the *École des Beaux-Arts* of Paris and the Architectural Schools of America;—a system which gives prominence to the study of monumental composition and of those larger problems in architecture which have hitherto been so much better understood on the Continent and in America, and which figure so prominently in the study of Civic Design. To illustrate fully a Town Planning scheme, it is necessary to produce not only an accurate plan, sections of contours and elevations, but also a bird's-eye view or continuous perspective; certainly such drawings are of invaluable assistance in explaining a scheme. In the studio these two methods of draughtsmanship will be fully demonstrated, both as regards method in setting up and also as regards rendering in monotone or colour. The teaching of draughtsmanship in its higher branches will form a very important part of the work done in the studio.

The work of the School will be carried on during the

Autumn and Lent terms of the academic year, which period constitutes a Session of the Department; and in connection with the work of the School the University has instituted a Certificate and a Diploma. The Certificate will be given to students who have done satisfactory work during two terms of the academic year and the granting of the Certificate will largely depend upon knowledge acquired during attendance at the Lecture Courses. The Diploma will be granted to those students who, having worked in the studio during a second session, have fully drawn out town-planning incidents and schemes. Just as it is necessary for the Medical Officer of Health to obtain his diploma before taking an official position, so it is hoped that the possession of the Diploma in Civic Design will be regarded as the necessary qualification for those officials engaged in the making of the Town Plan; and considering that in the near future some thousands of town plans will be required as a sequence to more efficient legislation, it will be readily understood that both advisory and permanent positions will undoubtedly be created and should fall by preference to those holding such a qualification as that of the Certificate or Diploma.

The lectures are open not only to those students who intend taking the whole course, but may be taken separately by architects, engineers, municipal councillors, or others interested in the subject of Town Planning.

The attention of those more especially concerned in the laying-out of grounds and private gardens is directed to the course of lectures in Landscape Design which will be delivered by Mr. Thomas Mawson. This course will not be precisely confined to Landscape Design in its immediate connection with Town Planning but will also treat the subject with reference to the laying-out of private gardens both in suburban areas and in the country. It is hoped that this course will attract students, both lay and professional, who wish to study the laying-out of gardens and garden culture as a separate subject.

Mr. W. H. Lever, M.P., has given three prizes of £20, £10, and £5 respectively, to be competed for annually by students of the School of Civic Design and of the School of Architecture, for a scheme for laying out the remaining unoccupied land at Port Sunlight. Mr. Lever further offers to pay £100 for the right to execute any of the schemes submitted for these prizes, if he desires to do so.

Japan-British Exhibition (London) 1910.

Under the auspices of the Imperial Government of Japan, and with the approval of the British Government, arrangements have been completed for a Japan-British Exhibition to be held next year at the "White City," Shepherd's Bush, with Prince Arthur of Connaught as Hon. President, and the Duke of Norfolk as President. The project has the full support of the Lord Mayor of London, of the London Chamber of Commerce, and of the Associated Chambers of Commerce of the United Kingdom. The Japanese themselves are following the arrangements with the keenest interest, and it is stated that all the departments of the Government—the Imperial Household, War, Navy, Home Affairs, Finance, Communications, Education, Agriculture, and Commerce, &c.—are vying with one another to make a notable display. The Fine Arts exhibit is expected to be quite unprecedented. Treasures of art accumulated for centuries by

the Japanese nobility and rarely seen but by the favoured few are being lent for the occasion by their owners, and will be displayed in the Fine Arts Palace at Shepherd's Bush. The Japanese Gardens are to be a special feature: skilled experts in this line are to be sent over from Japan to reproduce typical Japanese gardens in the grounds of the Exhibition.

Architects and Town Planning.

That the matter of town planning is essentially an architect's question has been repeatedly insisted upon in Presidential Addresses at the Institute, in Sessional Papers, and in contributions from various hands to this JOURNAL. There is evidence in the daily Press—notably in the *Standard*—that the more enlightened section of the public is coming round to the same view. Discussing the Housing of the Working Classes and Town Planning Bill, the *Standard* of the 30th August says:—

The really important proposal of Mr. Burns's measure is contained in Part II., which gives power to the local authority to regulate and control the developments of town and village, and to pull down, rebuild, and lay out in accordance with a scheme devised by the local authority or by the Local Government Board. It is clear that the value of such an enactment depends upon the ability of the authority. That some such powers ought to be conferred upon a responsible public body is undoubtedly true. The private enterprise of the speculative builder has hitherto been permitted a licence which has been intolerably abused. With scarce a protest he has been allowed to create whole cities of an incredible inconvenience and of an ugliness unsurpassed in Europe. But the mere transference of these powers to bodies of miscellaneous citizens, reinforced by permanent officials, will not necessarily accomplish the desired reform. The business of town planning belongs to the architect and not to the amateur. Unless the Local Government Board is prepared to call in architects of the highest distinction, and to follow their advice, it were better to leave ill alone. Individual enterprise, supported by an increasingly alert general intelligence, will do far better than the officials of a department, as every public building designed by officials stands to witness. Mr. Burns, if he will only use it, has an opportunity of reforming the whole State system in this respect. Architect, engineer, and medical authority should be enabled to work in concert, and all "schemes" should be submitted to the judgment of a committee composed of members of the Royal Academy and of the Royal Institute of British Architects. It is by the employment of such methods as these that the ideals which Mr. Burns honestly admires have been achieved in that exemplar of civic art among capital cities, Paris.

In its issue of the 10th September the *Standard*, taking up the theme again, says:—

We are beginning dimly to perceive that there are heights still to be scaled before we arrive at what Mr. Burns, in a burst of poetry, calls the City Beautiful. Beautiful cities do not now arrive by accident—it is a disputed question whether they ever so arrived—but by design. And the designing of cities, or town-planning, as Mr. Burns calls it, is the province of the archi-

tect. Town-planning is, indeed, a very high development of the noble art of architecture—mother of all the arts. It is only during the last few years that the art of town-planning has been recognised at all in this country. The inventor of the Garden City idea, Mr. Ebenezer Howard, drew his ideal town in a series of concentric circles, which looked very neat on paper, but which in execution would have been far from beautiful or even convenient. But the actual designers of the first garden city were fortunately educated architects, who carried into practice the essentials of Mr. Howard's notion while eliminating its amiable eccentricities.

The large extension of powers which the Bill proposes to confer upon the Local Government Board is adverted to in the same article, and the following suggestion put forward:—

The solution of a part of the problem would seem to lie in the appointment *ad hoc* to the central authority of a body of skilled advisers, representing architecture, engineering, and medical science, which could be empowered to draw up schemes of reconstruction and of town-planning, and which would also adjudicate upon schemes submitted to them by local authorities. Such a body should also be constituted by each local authority, so that, as in France, the chain of professional ability may extend from top to bottom of the system. At present, the only professional opinion usually admitted is that of the civil engineer, whose office is illegitimately extended to include the province of the architect. Now the engineer knows nothing of the art of architecture, though he may be conversant with the nature of the materials employed. It is characteristic of the general ignorance on the whole subject that the conception of town-planning in the minds of most of the members of the House of Commons who have taken part in the discussion of the Bill was limited to the design of the drainage system.

The Lords and Representation.

Lord Wemyss [*H.A.*] has given notice of the following resolutions he proposes to bring forward in the House of Lords:—

1. That, in the opinion of this House, it would be for the public good that important national trading and other representative societies should each name three members of the existing peerage, in the current and each succeeding Parliament, to speak and act on behalf of such societies on all questions in which they are interested, and that the names of the peers so nominated be entered in the journals of the House.

2. That the Lord Chancellor, the Marquis of Lansdowne, the Earl of Crewe, and the Earl of Halsbury be empowered to determine what societies are of sufficient importance to be admitted to the said privilege of nomination.

Lord Wemyss, in a letter to the *Standard*, states that his proposal has been very favourably received by a number of learned and trade societies, including the Royal Institute of British Architects, the Royal Academy, the Surveyors' Institution, the Society of Authors, the Royal College of Physicians, the Society of Engineers, the Building Trades Federation of the United Kingdom, the Royal

Sanitary Institute, the London Chamber of Commerce, the Gas Companies' Association, the Shipping Federation, &c. The Lords, he considers, if they adopt the resolutions, will in truth represent the organised brains of the nation, irrespective of party, and in the matter of representation need not fear comparison with any other representative body.

The late Charles Follen McKim.

The *Times* correspondent at New York telegraphs the announcement of the death, from heart disease, of Mr. Charles F. McKim [*Hon. Corr. M.*, elected 1903], senior partner of the firm of McKim, Mead & White.

Charles Follen McKim was born in Chester co., Pennsylvania, in 1848, and at eighteen entered Harvard University with a view to becoming a mining engineer. A year later, finding the studies uncongenial, he entered the office of Mr. Russell Sturgis, architect, of New York, and a few months later the Atelier Daumet in Paris, where he was prepared for and admitted to the Ecole des Beaux-Arts. Returning to New York at the outbreak of the war in 1870, he entered the office of H. H. Richardson; and in 1872 commenced practice on his own account, being joined in 1877 by Mr. Wm. Rutherford Mead, and in 1879 by the late Mr. Stanford White, who met with such a tragic end some three years ago. To the firm's credit stands a long list of public and private buildings in America, including the restoration of the White House, Washington, the Boston Public Library, the new terminus of the Pennsylvania Railroad in New York, and the building just completed in New York for the library of Mr. J. Pierpont Morgan.

In 1903 Mr. McKim was awarded by the R.I.B.A. the Royal Gold Medal for Architecture, and crossed the Atlantic specially to receive it at the hands of the then President, Sir Aston Webb, R.A. In the *JOURNAL* of the 23rd June 1903 will be found a portrait of Mr. McKim, and an account of the proceedings at the presentation, which included a characteristic speech from his lifelong friend, the then American Ambassador in London, Mr. Joseph H. Choate. A footnote to the President's Address gives a complete list up to that date of the works carried out by Mr. McKim in conjunction with his partners.

In 1889 two Fellowships, styled the McKim Fellowships, were established in the School of Architecture, Columbia University. In 1897 Mr. McKim was elected President of the American Academy of Architecture in Rome, and in 1899 was appointed member of the first Municipal Art Commission of the City of New York. In 1901 he served on the Park Commission for the improvement of the park system of the district of Columbia, and assisted in drawing up the magnificent scheme photographs of which were exhibited at the Institute on the occasion of the presentation of the Royal Gold Medal. Mr. McKim served as Presi-

dent of the American Institute of Architects in 1901 and 1902.

The Revised By-laws and Declarations: Undertaking re Competitions. A Correction.

Mr. A. R. Jemmett [*E.*] writes that his view with regard to the retention in the revised Declarations of an undertaking not to take part in a competition the conditions of which have been disapproved by the Council is entirely misrepresented in the report of the debate at the meeting of the 21st July (*JOURNAL*, 28th August, p. 699, 1st col.). "What I intended to say," writes Mr. Jemmett, "was the exact opposite of what is reported. My remarks should read: 'I strongly approve of this undertaking going in. It is not fair to say that to include it in the Declaration is to put it in the same category with the acceptance of illicit commissions.'"

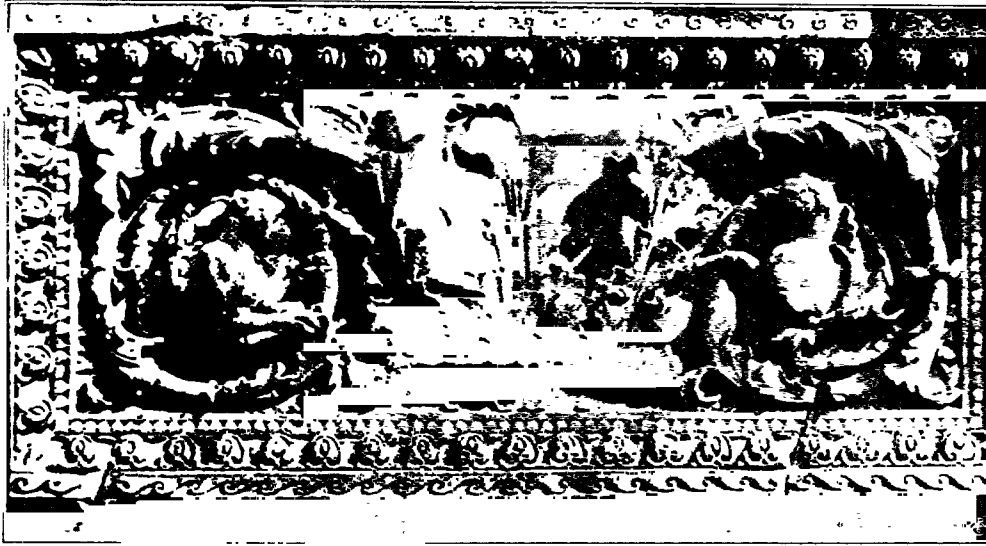
Lightning Conductors at Ely Cathedral.

Lightning conductors were first fitted to Ely Cathedral about the year 1859 to the specification of Sir William Snow Harris, F.R.S., Adviser on Lightning Conductors to the Crown, but doubts were entertained as to whether these were still in an efficient condition. Mr. Alfred Hands, F.R.Met.S., author of *Lightning and the Churches*, was therefore instructed by the Dean and Chapter to make tests and report as to the advisability of adopting more modern methods. Snow Harris' conductors, formed of short copper tubes screwed together, proved to be so defective that it has been found necessary to instal an entirely new system of copper tapes. This comprises two conductors on the Western Tower with branches from the flagstaff and four turrets, two from the towers over St. Catherine's Chapel and four from the Eastern or Lantern Tower, as well as from the Nave, Choir, Transepts, and Lady Chapel. The system, which has been arranged so as to be scarcely noticeable, has been carried out under Mr. Hands' direction.

School of Art Wood-carving.

The School of Art Wood-carving, 39 Thurloe Place, South Kensington, has been re-opened after the usual summer vacation, and the Committee of Management desire to make it known that some of the free studentships in the evening classes maintained by means of funds granted to the School by the London County Council are vacant. The day classes of the School are held from 10 to 1 and 2 to 5 on five days of the week, and from 10 to 1 on Saturdays. The evening class meets on three evenings a week and on Saturday afternoons. Forms of application for the free studentships and any further particulars relating to the School may be obtained from the Manager.

Mr. Frederick Chatterton [*A.*] has been appointed Assistant Lecturer in Architecture and Building Construction at the School of Engineering, Giza, Cairo.



Frieze, stated to be from the Basilica Aemilia.

ROMAN ARCHITECTURE.

By F. T. BAGGALLAY [*F.*].

Read before the Birmingham Architectural Association, 19th February 1909.

ROMAN buildings, after remaining for three centuries the sole inspiration of the architects of all Europe, have for a long time now received far less attention from English students than is their due, whether they are judged on their merits or by the fact that they are the direct ancestors of all such modern architecture as can claim ancient descent.

Our attention has lately been directed once more to Roman work—first, by the fact that when last English architects examined it they were content to look at a part only, and hardly went below the surface even there; secondly, I think, by our growing acquaintance with M. Choisy's illuminating work on Roman building methods; and lastly, by a half hope that, as the Imperial Roman system of construction was largely a monolithic concrete system, it may contain some suggestions for dealing with ferro, or reinforced, concrete: all the more since Roman concrete was almost always itself in a sense reinforced with brickwork. It is true that to call the brickwork used with concrete by the Romans "reinforcement" is somewhat misleading: at best it has but little resemblance to what we call reinforcement now: and much is merely centering or facing. On the whole, however, the case for paying special attention at the present time to Roman architecture is strong enough, I hope, to excuse me for bringing the subject before you, although I have no fresh information and little new to say about it. I should like to treat it historically; for although the dry facts connected with an architectural style or system of building can be learnt without reference to the historical point of view, they can only be really interesting or fruitful when seen in chronological sequence and in connection with the circumstances that moulded them. Without the help of history we see only the effect and not the cause; and without perceiving both we get at nothing that is of much real use to us.

A good history of Roman architecture has yet, however, to be written: and there are some difficulties in the way of writing it which are surprising if we consider only how many remains

still exist and how much we know about Roman history and civilisation in other directions. The difficulties are: the paucity and architectural unimportance of existing remains that can even probably be assigned to periods before the establishment of the Empire, the frequent difficulty in dating with certainty the existing remains in Rome of later structures, and the entire absence, in most cases, of definite clues to the dates of provincial buildings. The first two difficulties are largely due to the building activity of the first two centuries of our era, which led, with considerable aid from fires, to the repeated partial or complete reconstruction of almost all important buildings in Rome.

The uncertainty of the chronology of Roman architecture was somewhat violently illustrated only a few years ago. In 1894 M. Chedanne, a young Frenchman, seizing a favourable opportunity, was able to show that the rotunda of the Pantheon is not the building erected by Agrippa in B.C. 27, as had generally been supposed; but, almost certainly, a structure of the time of the Emperor Hadrian; quite certainly not earlier, for all the bricks, which he extracted at random from various parts, bore stamps known to be of that reign.

This discovery removed the principal witness to the extraordinary fact, hitherto always assumed, and often asserted in so many words, that the Imperial Roman system of brick and concrete construction sprang suddenly into existence fully developed in the reign of Augustus; and endured, virtually unchanged, for nearly three and a half centuries. M. Choisy himself, in a short chapter labelled—perhaps in irony—"historical," spent much language in enlarging on the unprecedented and surprising nature of the thing; but he insisted nevertheless on the sudden rise of the system, its almost as sudden abandonment, and the absence of growth or development between.

M. Choisy, like others, evidently compared the Pantheon with the writings of Vitruvius, who must have published them at just about the time it was being built, yet was obviously entirely ignorant of any methods of building nearly so advanced; and instead of finding what now appears to be the obvious solution of the puzzle—namely that the date assigned to the Pantheon was a mistake—M. Choisy accepted the date as others had done and arrived at the only conclusion then possible—namely that the incredible had really happened, that the system on which the Pantheon is built had just sprung suddenly into existence, and that Vitruvius was a poor old fellow far behind his times and grossly ignorant of what was going on around him. Unless we believe this of Vitruvius it is impossible to suppose that walls faced with burnt brick were common, if they existed at all in the earlier part of the reign of Augustus. It is true that in a passage in which he is supposed to be quoting a law then just promulgated he mentions burnt brick as one of the materials allowed to be used for ground floor walls in Rome. (It is a passage that reads rather like a later insertion, but that need not be insisted upon.) But he nowhere mentions the triangular bricks used in all known remains of Roman brick facing; and in the long chapter in which he describes minutely the various kinds of walls, he not only does not mention brick facing at all, but says that *opus reticulatum*—a facing of small blocks of stone—was what everyone was then using—"quo nunc omnes utuntur."

There is one piece of Roman brickwork, the basilica at Pompeii, which Overbeck in his great work on the town put down to 93 B.C., and which others, on the strength of a date said to be scratched on the building, have attributed to the consulship of Lepidus and Catulus—that is 76 B.C. But such dates are most improbable. The work is beautifully executed with moulded bricks (*v. fig. 1*), in a style which one cannot suppose to have been possible at such dates, but would be quite natural if the basilica had been rebuilt after the earthquake of A.D. 63, which, according to the contemporary evidence of Seneca, threw down a great part of the town.

Without admitting that because one doubts whether the Romans used brick-faced concrete quite so early as has been supposed, one is therefore obliged to point out when they did

begin to use it, it may be suggested that the upper part of the ruins of Caligula's palace, and the original part of the wall of the prætorian camp in Rome, which Dr. Middleton succeeded in distinguishing from later additions, are the earliest works of the kind of which considerable remains exist. From Middleton's description the latter wall must have been a very fine piece of work—better even than that executed under the Flavian emperors; and he attributed it to the time of Tiberius, when the camp was first established by Sejanus in A.D. 23. Dean Merivale says the wall was not built until two centuries later; but he was probably thinking of the work of Aurelian, who, as Dr. Middleton shows, merely raised

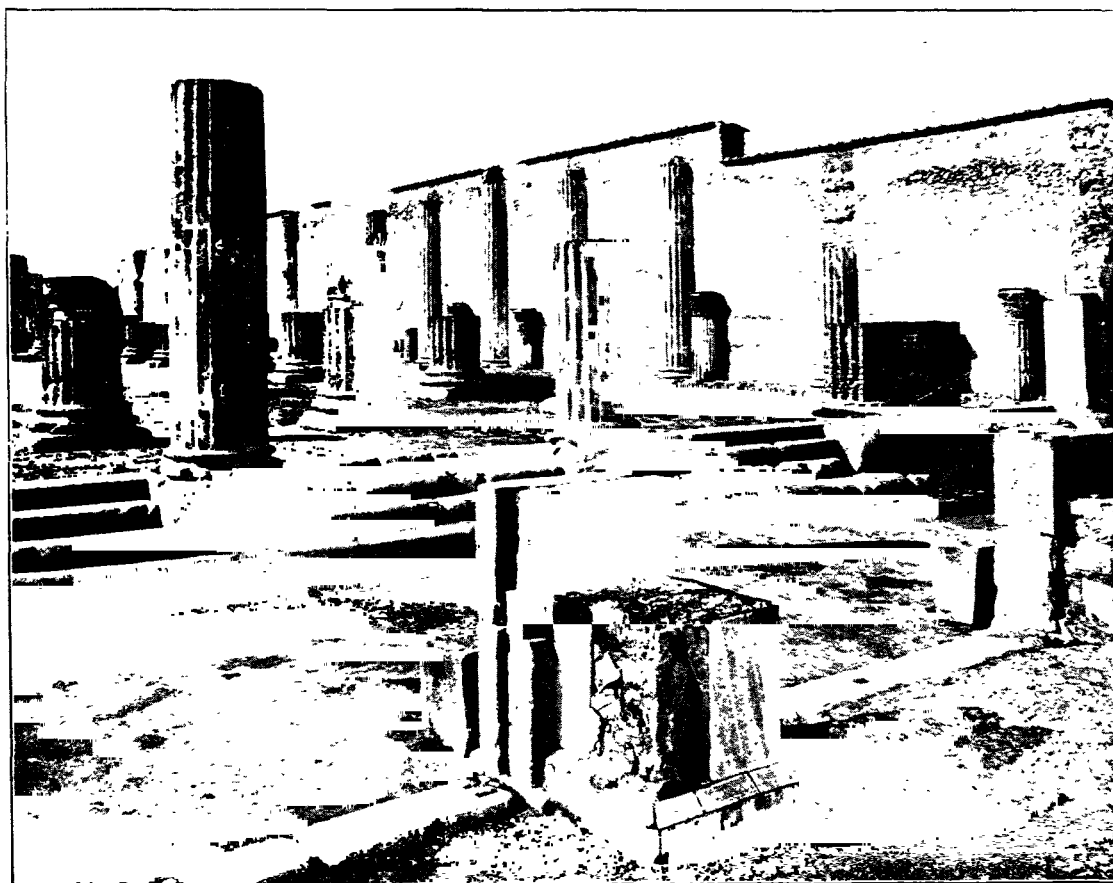


Photo. Alinari, Rome.

FIG. 1.—BASILICA, POMPEII.

All the columns are of brick covered with hard stucco (*Opus Albaticum*).

it. The latter's supposition that the wall was built at once upon the establishment of the camp is not, however, necessarily correct. The mere establishment of the camp was sufficient for the purposes of the moment, and to fortify it permanently at once would have been to further alarm the people of Rome without adequate reason. The coin, too, of Claudius on which the camp is pictured appears to show a timber fence rather than a brick wall. On the whole, it seems quite likely that the wall was not built before the time of Claudius, or even Nero. With regard to the other example also, the works are immense, and if completed by Caligula must have been built in three and a half years at most. There is nothing improbable in supposing that part of the palace to have been completed by Claudius; and

there is a distinct difference of system between the lower and upper parts of the work, the lower being of *opus reticulatum* with brick quoins and arches. One part of the ruins of Nero's "Golden House" Dr. Middleton also describes as being faced with brick, and another with a mixture of *opus reticulatum* and brick—that is no doubt with brick quoins. It would be rash to entertain a positive conviction opposed to the generally accepted opinion, but it seems possible we may eventually discover that though fired building bricks were gradually coming to the front from the middle of the first century B.C., and may have been given a certain

impetus by the Metropolitan Building Act of Augustus, their use in the place of stone for entire wall facings did not become general before the time of Nero. If that should be so, we may perhaps also find that the system of building concrete vaults with a lacing or framework of brick did not reach its final development before the middle of the second century of our era.

With respect to Roman concrete, I should like to enter a protest against the indiscriminate use of the term by Dr. Middleton and other writers, who apply it even to the walls called by Vitruvius *opus incertum* and *opus reticulatum*, in opposition, as it seems to me, to what Vitruvius himself tells us. It may be merely a question of a definition, but if a writer has one definition for a thing and his readers another, he becomes misleading. Dr. Middleton argues for the word concrete because "the result was a perfectly coherent mass, like a block of stone, particularly unlike what is now usually known as rubble work." But to the professional reader the difference between concrete and rubble work is not one of result, but of the way in which the result is obtained—the results by either method may differ as chalk from cheese. The doctor himself acknowledges that in the examples he examined the larger stones were placed with so much regularity that they must have been *thrown* in separately. He arrived at the conclusion that thick layers of mortar, mixed with small stones, and layers of larger stones, were thrown in alternately. When this was done in trenches in the ground, within wooden moulds, of which he found distinct marks on certain walls, or between two built faces, as described by Vitruvius in speaking of wrought stonework, one may

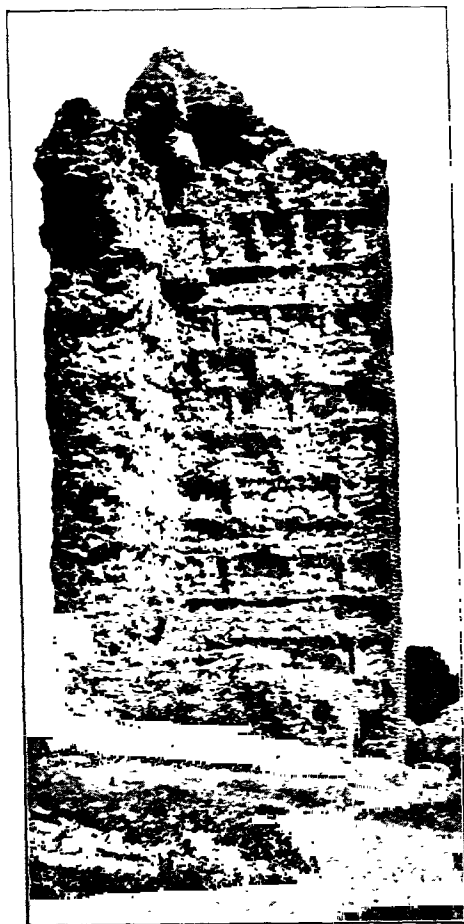


FIG. 2.—ONE OF THE PIERS OF THE AQUEDUCT OF CLAUDIUS SHOWING THE COURSES IN ROMAN "CONCRETILE."

very well admit the term concrete, even though the regularity of the larger stones suggests that they were *laid* in by hand rather than *thrown* in (*v. fig. 2*). But Vitruvius never by so much as a hint suggests the use of "false work" in his time. He tells us, and the appearance of the walls at Pompeii, for instance, bears out the description, that *opus incertum* consisted of rough quarry stones, "one over the other bonded together"—in fact a rubble wall, built, no doubt, with a larger quantity of mortar than we use, but built, not cast. *Opus reticulatum* he does not describe in detail, but evidently regards as a fashionable variety (which he does not altogether approve) of *opus incertum*. As a matter of fact, it would not be possible to

cast a wall faced with *opus reticulatum*, and would be very difficult even to *build* it behind boarding—especially the weather boarding, of which Middleton found traces. The facing was of small conical stones with square heads, which were required to fit neatly together on the face; to set them inside boarding a man must have worked overhand and without seeing what he was doing. Without the boarding, however, there would be no more difficulty in building such a wall than



Photo. Anderson, Rome.

FIG. 3.—*OPUS RETICULATUM* IN THE MAUSOLEUM OF AUGUSTUS, SAID TO HAVE BEEN BUILT IN 28 B.C.

in building a flint wall with split facing ; and there can be little doubt that that is how it was done. It must, however, have been slow work. One knows how necessary it is to go slow when building with flint or small rubble in lime mortar. After getting a foot or two one must wait for the mortar to set before putting more weight on, otherwise the work will bulge and twist. Now mortar made with *pozzolana*, such as the Romans used, though it eventually gets extremely hard, does not in the first few days set appreciably faster than good lime mortar ; and the Romans used it in large quantity. If one may venture to guess, it was this slowness that led after a time to the introduction of false work to support walls while in course of erection. It seems nearly certain it was unknown in the early years of the reign of Augustus, but it may have been introduced soon afterwards. The building activity of that reign was unprecedented, and would probably have demanded methods quicker than the old. On the other hand, most of the remains of the time are of squared stone or very neatly executed *opus reticulatum*, which cannot have been built behind false work (c. fig. 3). Middleton's first-dated example of the evidence of false work is part of the foundations of Caligula's palace, and he mentions also a facing of *opus reticulatum* and brick, which may very well be of the same period, as being very roughly executed, which would be natural if an attempt had been made to apply the new discovery to a purpose to which it was not suited.

In the matter of arches and vaults, the later Romans believed that they had learned the art of building them from their old neighbours and enemies, the Etruscans ; and probably they did, though it is easy to see that the character of the materials they had at hand was such as to favour an arched system, while the nature of the site of Rome and the surrounding country suggested the construction of drains and aqueducts, in which arching, to say the least, came in very usefully. The history of Roman architecture in early and Republican times may, perhaps, never be recovered. The difficulties in the way of excavations are great, while owing to the continuous occupation of sites, the results rarely throw much light on early work. There are some remains of early walls of that squared and bonded masonry which Vitruvius seems to have thought was one of the things Roman architects had borrowed from the Greeks, and we may assume as certain that, like the Etruscans, the Romans early used the arch to span gateways. But we do not know how soon they began to put the arch to other uses, and the extent to which vaulting was developed, before it was taken up by the architects of the Imperial period, is not altogether clear. The little dome over the ancient subterranean chamber, called the Tullianum in Rome, is built of cut stone in horizontal courses, and M. Chedanne declared that the dome of the Pantheon is built entirely of brick in the same way - that is, in horizontal courses. If he was right it would seem to indicate that even in the reign of Hadrian the Romans had not arrived at our conception of domes as developments of the arch, and dependent for their stability on much the same forces ; but they regarded them as systems of corbelling. The chamber above the Tullianum, called the Mamertine prison, is however roofed with a small barrel vault neatly built with stone voussoirs (c. fig. 4). Its date is uncertain except that it is very early Republican. If Vitruvius knew how to build a vault at all, it is surprising that he did not give instructions in the art in a book which he evidently intended should cover the whole field of building, and in which he deals with so many smaller matters. In the chapter on baths he twice mentions *Camerae*, that is arched ceilings, over the hot rooms, and twice the hemisphere over the semicircular recess in which the *labrum* was placed. But he implies that the arched ceilings would not usually be structural ones. He says " they will be more serviceable if built," but not how that is to be done, and proceeds to describe as an alternative a ceiling of " roofing tiles without margins " laid on iron rods or arches hung to a timber framing.

The still existing barrel and hemispherical vaults over some of the rooms in the public baths at Pompeii are often quoted as of the Republican period, but their date is very uncertain.

From illustrations it would appear that they are entirely of concrete or rubble without brick, but the walls of the rooms are shown as having brick piers and lacing courses, which, according even to Dr. Middleton, would make them not earlier than the last years of the reign of Augustus. The oldest important Roman vaults to which a date can be assigned with tolerable certainty are those in the building called the Tabularium, erected against the face of the Capitoline hill, on the Forum side, probably in B.C. 78. These are narrow barrel vaults of tufa concrete strengthened in one part at intervals with arches constructed with stone voussoirs, and partly, perhaps, resting on them. The next are those of the substructures of Caligula's palace which, if not quite so old as Caligula's reign, must be older than those of the Colosseum. Middleton says they are cast concrete. Then come the vaults behind the two lower ranges of arches of the Colosseum (fig. 5), which must have been erected between A.D. 70 and 80. These are barrel



Photo. A. Wilson. Rome.

FIG. 4.—VAULT OF THE "MAMERTINE PRISON."

vaults constructed with brick arches at intervals, between which they are of concrete, on the lower surface of which the marks of boarding are still visible. All the more elaborately constructed vaults illustrated by M. Choisy are of the second century and later.

To turn from the history of construction to other matters: there is other evidence, besides that of Vitruvius, for the fact that the Romans acknowledged their indebtedness to the Etruscans for the form of their early temples, which appear to have had tree trunks for columns, widely spaced and carrying wooden architraves. The cella walls were of rubble or unburnt brick, stuccoed over, and no doubt terminating opposite the columns of the prostyle portico in timber antae. The roof was of timber, covered with terra-cotta tiles; a terra-cotta cornice and ornaments were fixed round the eaves and, sometimes at least, terra-cotta or bronze statues ornamented the tympanum and the apex of the pediment. All was crudely painted in bright colours. Judging by a custom of later times which must be mainly due to tradition, the whole structure was probably raised on a high base or podium, perhaps to lift it above the

marshy ground common in Roman and Etruscan territory, perhaps because the first Roman temple had for some reason to be built overhanging the edge of the Capitoline mount on a substructure built upon the hillside. Vitruvius mentions three temples still standing in Rome in his day as specimens of what he calls the old Tuscan order, describing them as "clumsy, heavy roofed, low and wide," and in another place he gives his usual set of pedantic rules for reproducing such temples. These run to some length, and are chiefly interesting because they appear in the main to describe the most important temple in Rome, that of Jupiter Capitolinus, as it existed in his day—that is, as it was rebuilt by Sulla after the fire of 83 B.C., and remained until again destroyed by fire in the faction fight that ushered in the reign of Vespasian in A.D. 70. We learn that the temple was not far from square on plan, the width being to the depth as 5 to 6; that it had only one pediment, the back of the roof being hipped; that the eaves were very wide; that half the depth of the temple was taken up by the portico; that the cella, which occupied the back half, was divided into three in width; that the columns were of pseudo-Doric character with bases; and other interesting particulars. Vitruvius specifies wooden architraves, but does not say anything about the material of the columns. We know, however, from Pliny and the researches of Penrose, that the shafts of the columns of this particular temple were coloured marble monoliths, stolen by Sulla from the temple of Olympian Zeus at Athens. We know, too, that the pediment was crowned with a huge terra-cotta quadriga, reputed to have been brought in ancient days from Veii.

But the temple of Jupiter Capitolinus, of which we thus get a fairly complete and detailed view, was not typical of the buildings, nor even of the temples, of the later Republican period, but was obviously peculiar. Although it had been rebuilt only about half a century before Vitruvius wrote, a great conservatism had presided at the reconstruction of a fane reputed the oldest and most sacred in Rome, and the light thrown upon it is chiefly of use to illuminate what may be called the first period of Roman architecture, before it came under the direct influence of Greece, or was stimulated by the broader outlook, the new requirements, and the wealth arising from foreign conquests and ever-increasing commercial activity. Some of these influences began to be felt soon after 200 B.C., between the end of the second Punic war and the final destruction of Carthage. In that period at least three basilicas were erected in Rome to accommodate the increasing legal business arising from her position as mistress of all Italy and suzerain of most of the known world. They were probably the first of the long line of public civil buildings which distinguish Roman architecture. Before their erection the Forum and the temples seem to have sufficed for all public business except ordinary meetings of the Senate, which took place in the Curia, itself, however, merely an old temple enlarged for the purpose. Nothing remains of two of these basilicas, and even their sites are matters of controversy. One, the Basilica Emilia, is pictured on a coin, where it is represented as a small two-storied porticus of columns, roofed but with open sides. Professor Lanciani believes he has discovered its remains.* The earliest triumphal arches—three or four at least—were also built in this period; but again all we know for certain of their appearance or construction is that they were adorned with statues of gilt bronze. Two more bridges over the Tiber (there was already one) were also built, one of which was reputed to be the first stone bridge. But for some time the piers only were of stone, the arches not being added until 142 B.C., whether from lack of skill, or because there were superstitious objections to the use of anything but wood for bridges, is not clear. Meanwhile many Greek works of art and educated slaves were finding their way to Rome, and after 146 B.C., when Greece became a Roman province, we are told that Roman art and literature fell entirely under Greek

* "Architectural Results of the latest Excavations in the Forum at Rome," by Professor Lanciani. [JOURNAL R.I.B.A., 24th Nov., 1900.]

influence. One could wish there were more evidence of the extent and effect of that influence on architecture: for the last century of the Republic was one of considerable building activity, and it would help greatly towards a comprehension of the laws, if such there be, that



Photo Anderson Rome

FIG. 5.—VAULT IN COLOSSEUM.

govern architectural development if we had but a few well-authenticated remains of the many old temples rebuilt, and of the others and the public buildings erected in Rome and elsewhere in that century. But for temples we have to rely on a single small example, the so-called Temple of Fortuna Virilis at Rome, which, on the evidence of the building itself, is attributed to this time, probably correctly: and, for public buildings, on the so-called Tabularium, the main evidence for the date of which is a little shaky, but is borne out by that of the structure: and finally, the lower part of the theatre of Marcellus, which was begun by Julius Cæsar. Of the Temple of Fortuna Virilis (or Fortuna simply) Dr. Middleton says: "What the real date of this very interesting building may be it is impossible to guess, except that it is probably earlier than the middle of the first century B.C. Its early date is indicated by its pure Hellenic style, free from any Roman modifications (except perhaps the form of its elevated podium), by the absence of any marble, and by its being mainly built of tufa, travertine being used in a very sparing way, though much care and labour have evidently been spent on the construction and decoration of the building." The temple is a very small one, pseudo-peripteral with a prostyle portico, and of the Ionic order. It was stuccoed all over with marble dust cement, in which all the mouldings and ornaments were finished. The mouldings were cut in the stone, but in the cornice at any rate the finished cement mouldings differ in several respects from the stone ones. The proportions of the plan are Greek, the length being just twice the width. But the ornaments of the frieze, garlands hung from candelabra and ox-skulls, are essentially Roman. The attached columns are only half columns. The strongest items of evidence for early date are the Greek simplicity of the mouldings, the absence of marble, and the proportions of the building, with regard to which the Romans, a little later on, were not in the least particular. The sparing use of travertine proves nothing: as a matter of fact it was more sparingly used in many later buildings.

The principal evidence for the exact date when the Tabularium was erected is an inscription discovered in the building in 1450, now only known from a quotation and which Dr. Middleton describes as very vague and puzzling. But its purport is that substructures and a tabularium were erected by Quintus Lutatius Catulus, who was Consul in 78 B.C.: and Dr. Middleton's hesitation about it seems to rest mainly on the fact that, while many tabularia, or record offices, existed in Rome, this is not known to be one of them. It is not, however, known to have been anything else: it appears to be suited by position and arrangement to such a purpose; it has extensive and conspicuous substructures: the character of the masonry shows it to be of early date; and, finally, Dr. Middleton himself points out a very interesting fact which appears to prove conclusively that the substructures, at any rate, were built between 121 B.C. and about 6 A.D., that is during the existence of the second Temple of Concord. He says that the only part of the facing of the tabularium wall not neatly dressed is that which was concealed by that temple, which can hardly mean anything but that the wall was built up against it. Altogether the evidence of date is nearly conclusive, and far better than in the case of the Temple of Fortuna or any other conspicuous building supposed to be of the Republican period. I have already described the vaulting. The walls and arches are all of very neatly wrought masonry, with fine joints, mostly of the native tufa (probably the rock that was cut away to make room for it), faced with the harder *peperino*, in which the arches are of travertine. The blocks of *peperino* are all cut to the same size—4 feet by 2 feet. The upper part of the structure consisted on the front of an open arcade, said to have been once two stories high, though now only part of the lower story exists, partly blocked up and surrounded by other buildings (*c.* fig. 6). The architectural interest of this arcade is that it is probably the earliest, or the earliest extant, example of the famous Roman facade, namely a series of constructional arches and piers, like those of an aqueduct, ornamented with a framework of

columns and entablatures planted against them. It may be the first attempt to endow a native arched structure with what was considered Greek architectural grace. The engaged columns in this case are Doric—the Roman variety—and parts of the architrave still exist, but all above that is gone. If there were really two stories and the second had Ionic columns the design must have been very like what we have left of the outside of the Theatre of Marcellus, only built straight instead of circular, and raised on a lofty basement. Pompey's Theatre, the first stone theatre in Rome, built 55 to 52 B.C., seems to have been similar. The Theatre of Marcellus was begun by Julius Caesar, but, as it was not finished until 13 B.C., the works had probably not got very far at his death. It is too well known to need description. The whole of the outer wall is built of solid travertine masonry, as we are told was that of Pompey's Theatre. It was all stuccoed over; but, as in the case of the Temple of Fortuna, the mould-

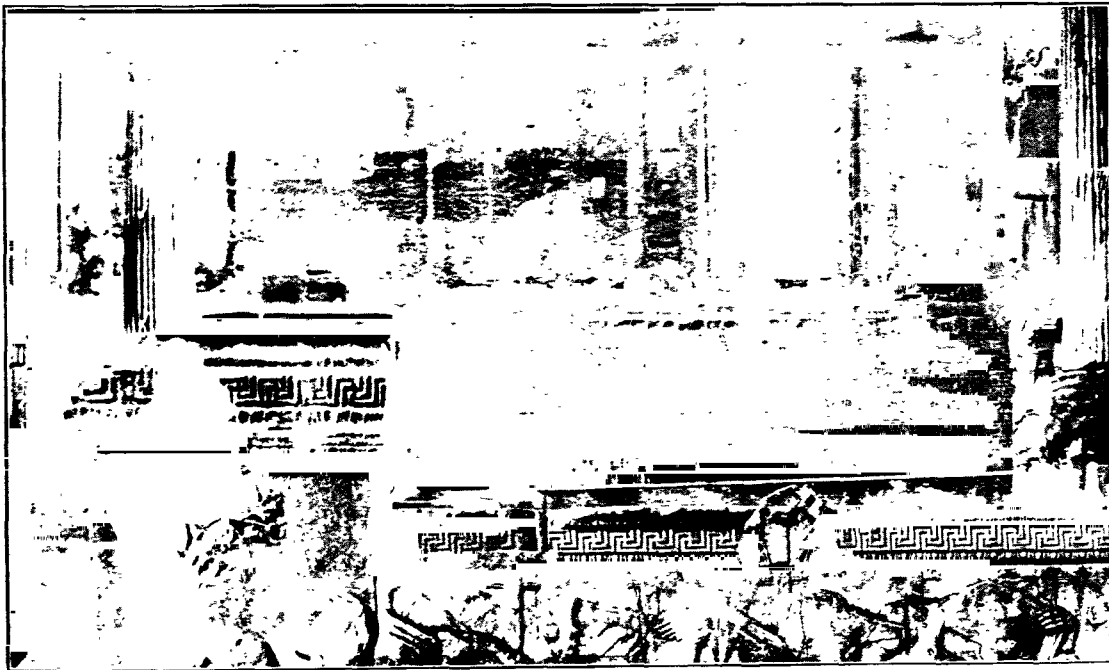


Photo Anderson, Rome

FIG. 6. REMAINS OF THE LOW PERISTYLE ARCADE OF THE "TABULARIUM," FACING THE ROMAN FORUM.

ings are carefully cut in the stone beneath and, except the impost moulds of the arches, are good. The voussoirs of the arches are of great size and no archivolt moulding is worked on them. One may, of course, have been formed in the stucco covering, but probably was not, for had it been in scale with the heavy impost mouldings it would have needed a core and been very ugly. The substructures of the cavea or auditorium, much of which still remain, can hardly be coeval with the outside wall: they may be part of the restoration undertaken by Vespasian, or of a later one.

A good deal might perhaps yet be learnt concerning the history of architectural details and construction from a critical comparison of tombs, and even of sarcophagi. They are more often dated by inscriptions than buildings, and very little liable to extensive restoration. There are several large tombs near Rome known to be of the later Republican period: for instance, that of Cæcilia Metella, and the curious baker's tomb, close to the Porta Maggiore.

Both of these are built of wrought masonry with a backing of concrete or rubble, and were once covered with the usual hard stucco. Neither brick nor marble entered into their construction. The drum of Cæcilia Metella's tomb has false V-joints cut in the masonry, and a frieze of ox-skulls and garlands which seems characteristic of the time.

The most interesting architectural development in the last century of the Republic was the birth of a domestic architecture properly so called, a domestic architecture nourished by the immense private fortunes which became common. The rapidity with which it grew up may be gathered from the difference between the state of affairs in 125 B.C. and sixty or seventy years later. In the former year Sulla, afterwards Dictator, was paying 3,000 sesterces—say £25—a year in rent, which is said to mean that he was living in two rooms; and Lepidus the Augur was called to order by the Censor, for luxury because he paid twice as much. At the later time Cicero, besides his town house, for which he had paid a sum equivalent to about £30,000, owned no fewer than seven country ones—that is, for his own use—and though we do not know the exact numbers of the houses kept up by other rich men, it is quite clear Cicero was not singular in that respect. These houses were of immense size. Sallust speaks of them as like cities, and they were adorned with marble columns, paintings, statues, and works of art of all kinds. They covered large areas, the greater part being but one story high; moreover, even in Rome they were often surrounded by extensive gardens. One such house changed hands for fifteen millions of sesterces—say £132,000—which probably did not include the movable works of art. It is recorded that as early as 92 B.C. Crassus erected in his atrium columns of the marble of Mount Hymettus 12 feet high, for which piece of luxury Brutus nicknamed him “the Palatine Venus.” By 78 B.C. Lepidus was using Numidian marbles not merely for columns, but for thresholds. Marble slabs for lining walls seem to have been introduced rather later, in Cæsar's time. Before that, all walls, internally as well as externally, were covered with hard plaster and painted. No remains are known of the large country houses or villas of the time; and the impossibility of finding out much about them from the allusions in ancient literature may be judged by the various interpretations that have been put upon the fuller descriptions of his own villas by Pliny in the next century.

Passages in the sixth book of Vitruvius indicate, however, that country houses of the better class in his day did not differ materially as regards their domestic arrangements from town houses except that the peristyle was the first court entered, with the atrium beyond it, and that they had baths and various farm buildings attached to them. After several chapters devoted to describing private dwellings generally, the several apartments, and the modifications of size and arrangement required for different classes of owners, he says: “But the same things are true, not only of buildings in the town, but also in the country, except that in town the atriums are usually next the gates, but in the country and suburbs uniformly the peristyles, then at once paved atriums having porticos around and looking on the palaestras and walks.” The object of the country arrangement was obviously to get this view of the grounds from the common dwelling-room of the house. It would seem not to have held at a later date in the larger villas of the Imperial period, when the atrium had become less a dwelling-room than an entrance hall, for Pliny says that in his Laurentine villa the atrium was the first apartment entered. In the suburban villa at Pompeii, called the villa of Diomed (*v. fig. 7*), the description of Vitruvius holds good; for the long apartment, called the gallery, which looked on to the terrace round the palaestra and to the country beyond, no doubt served most of the purposes of the atrium in a town house, though its form differs entirely both from those described by Vitruvius elsewhere and from others in Pompeii. Unfortunately there are no means of dating the building. For a wealthy man's house it is not large, and the decoration, though it is described as tasteful, was inferior to that of many other Pompeian dwellings.

One can hardly accept it as a specimen of the spacious and sumptuous habitations we hear of even under the late Republic.

In his chapter especially devoted to country houses Vitruvius is evidently describing only what we should call farm houses. He speaks of the several aspects and the arrangement of farm buildings, stables, kitchens, wine presses and baths—which he says should be placed so that they can be used also by the farm hands. And then he adds: "If something of luxury is to be introduced into country houses they are to be built according to the proportions that are laid down above for those in towns, on the fixed condition they are to be so arranged as to be without impediment to country uses." In Diomed's villa this part of the problem seems to have been solved by putting the farm buildings at the side of the house, separated from it by a narrow court, probably as a safeguard against fire or noise; and one may take it that in a gentleman's villa some such arrangement is so obvious that it would be the usual one. Of the better class of Roman house at the end of the Republic, that is, the separate house of the wealthy called a *domus*, as distinguished from the *insula* or block of flats inhabited by poorer folk, we can obtain a very clear idea from the descriptions of Vitruvius, which necessarily refer to this time, because they are illustrated by considerable remains of such houses at Pompeii. These agree very closely with the descriptions, and many date no doubt, at any rate as regards plan and the lower parts of the walls, from soon after 64 B.C., when the town was Romanised and became a fashionable resort of the wealthy. One of Cicero's seven villas was at or near Pompeii; he calls it his Pompeian villa. It would be wearisome to repeat the oft-told names and uses of the various apartments of the Roman or Pompeian house; though a comparison of description with example is exceedingly interesting, both in itself and in the light it throws on the life of the period. But it may be worth while to repeat once more that the Pompeian houses are essentially Roman, and not Greek in their arrangements. They do not agree with the contemporary description of a Greek house by Vitruvius, and they do agree both with his description of a Roman house and with what has been discovered of the plans of houses in Rome; it is not very much, unfortunately, but adequate for the purposes of comparison. The decorations of the Pompeian houses certainly appear to owe something to Greek influence, but similar decoration has been found in Rome, and the Greek names which Vitruvius gives to many of the principal apartments he applies to Roman houses generally and not to those in Pompeii

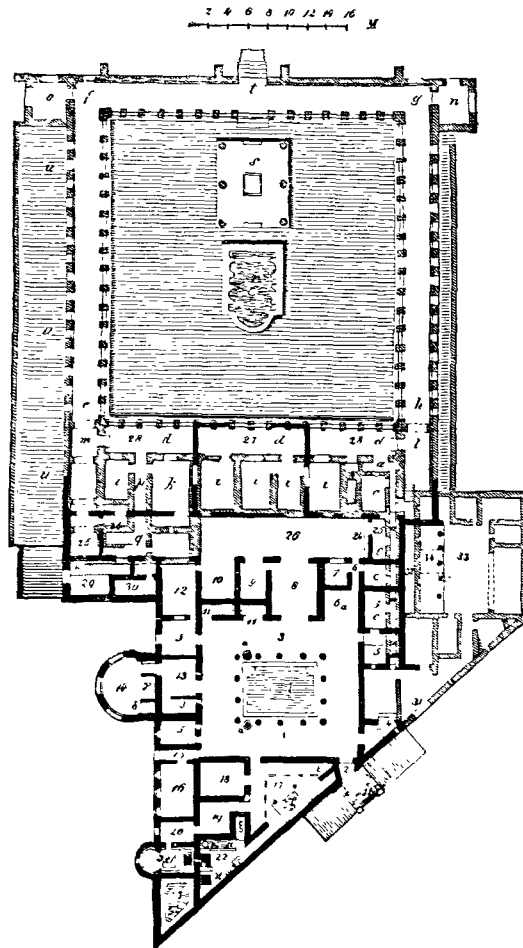


FIG. 7.—PLAN OF THE VILLA OF DIOMED.
(From August Mau's *Pompeii*.)

1, Steps. 3, Peristyle. 8, Tablinum. 10, Exedra. 12, Dining-room. 14, Sleeping-room with ante-room (13). 15, Passage leading to 16 garden at the level of the street. 17, Small court with fountain (c) and salmoning-bath (s). 18, Store-room. 19-21, Bath. (19, Apodyterion. 20, Toddarium. 21, Caldarium). 22, Kitchen. 24, Gallery, facing a terrace (23) over the front rooms of the lower part. a, b, c, d, h, Colonnade enclosing a large garden. e, x, y, m, Rooms. f, Fish-pond. g, Arbor.

alone. If the architecture of Pompeii owes anything to Greek influence it is the influence which for a long time dominated all Roman art, and cannot be due to the Greek origin of the city, as has been assumed. Pompeii had ceased to be a Greek colony for many centuries before it became a Roman one, and had passed successively, it is said, through the hands of Oscans, Etruscans and Samnites. The Greek tongue had long been extinguished, and any Greek blood left in the inhabitants can have been neither sufficient nor sufficiently important to inspire its architecture.

If you compare Pompeian ruins with those of the immense structures in Rome the walls seem to be but slightly built, but they are quite as thick or thicker than we should erect now under similar circumstances. They are mainly of the so-called Roman concrete, really rubble; many quoins, most isolated piers, and some walls are of wrought masonry. A certain amount of burnt brick is used, especially for patching and in the upper parts of the ruins. It probably indicates work of the Imperial period, and generally, no doubt, the repairs and restorations after the earthquake of A.D. 63 before referred to. That upper stories over parts of the houses were common is shown by the considerable number of staircases and traces of staircases found, although most appear to have been of wood and many would leave no trace. The small remains of the upper stories recovered indicate that they were constructed with wooden framing and sometimes overhung the footways. The existence of upper stories at Pompeii is interesting because a remark of Vitruvius might have led one to suppose that in his day upper stories were peculiar to Rome: he says: "The immense population of Rome makes it necessary to have a vast number of dwellings, and as the area is not enough to contain them all on the ground story, the nature of the case obliges us to raise them in the air." It hardly seems likely that all the upper stories in Pompeii were additions subsequent to the time of Vitruvius, and one must suppose he was referring only to an exceptional number of stories in Rome. It is difficult to guess how many these were. On the one hand no Latin author ever mentions more than four, and Juvenal, a century after the time of Vitruvius, speaks of the dwellings of the poor "in the fourth story under the roofs." Besides, Vitruvius tells us that walls next a public way might not be more than a foot and a half thick. Yet Augustus thought it necessary to limit the height of buildings to seventy feet.

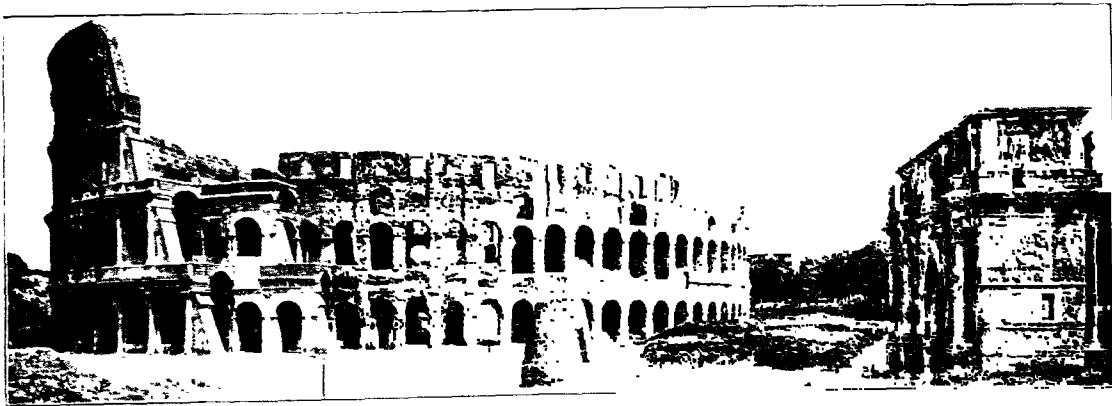
The only existing remains of a house of Republican date in Rome are those of the so-called house of Livia, under Domitian's palace on the Palatine. It contained a small atrium with the *alae* formed by a long narrow recess on each side of the tablinum, and not in the position of those in the Pompeian houses. The walls are of wrought masonry and the arches of stone voussoirs. From the plans of the three houses found on a fragment of the celebrated "Marble Plan" of Rome it would seem that *alae* were not essential in the atriums of the Imperial period. In two cases they are altogether absent, and in the third they have been separated from the atrium and turned into a sort of gallery by a wall built across it. There are, too, several cases in Pompeii where there are no *alae* or only one.

A number of ancient writers distinguish between the *insula*, or group of small dwellings, and the *domus* or separate house, as we distinguish between a house and a block of flats. But in Pompeii, at any rate, the *domus* as often as not formed part of a group which included habitations of various sizes. The typical example is the *insula* called the house of Pansa, where around the *domus* are grouped, besides shops that must have been separately occupied, at least five small houses: three containing some five or six rooms, and two of one room each and a staircase leading to an upper one now gone. There is, besides, a separate staircase from the street, which probably led to other dwellings on the upper floor. It is said that such an arrangement would have been impossible in Rome, where the *insulae* were built four or more storeys high, because the light would have been shut off from the main *domus*. But with internal courts as large as the atria and peristyles of Roman houses, and the little value evidently

attached to light in the bedchambers and other small apartments, there can have been no such objection. It can only be raised to give the distinction between *insula* and *domus* too strict a meaning. No doubt many a *domus* in Rome and the suburbs, as elsewhere, was (in the language of the auctioneer) a "desirable detached residence," but probably many others formed parts of *insulae*, as in Pompeii. Shops on the principal street front, both communicating with the house and separated for letting off, are characteristic of the Pompeian houses. Those belonging to the house were nominally for selling the produce of country estates, and illustrate a passage of Vitruvius in which he says: "For those, again, who have to deal with country produce: at their entrances shop enclosures, and among the buildings cellars, granaries, store-houses, and so on . . . are to be made."

The construction of the houses in Rome must have made it a somewhat unpleasant place to live in. The streets must have been as narrow and dark as those in the worst of mediæval cities. The stories overhung one another, and, in addition, balconies projected so far that in some cases at least it was possible to shake hands across the street. Even after Nero had enacted that all external walls were to be of fireproof materials the upper stories continued to be of wood, and were so badly built that they frequently fell. One writer declares that people were driven out of Rome by the fear of falling houses: many speak of the danger of tiles slipping from the roofs or thrown by persons in the upper stories. Of course bad fires were frequent. A very old law directed that two feet should be left clear between buildings; but it fell into abeyance and does not seem to have been observed even after it had been re-enacted by Nero. Probably "vested interests" were too strong by that time to be overcome.

I will only add an apology for referring so often to Vitruvius, a writer who seems to me to receive less attention and respect than he deserves: from scholars because he wrote indifferent or at any rate rather obscure Latin; and from architects because, unfortunately, few show any profound curiosity to know what he says, and, consequently, do not find out how interesting he really is.



CHARLES FOLLEN MCKIM.

A PERSONAL NOTE BY SIR ASTON WEBB.

C.B., R.A., F.R.S.

I have been asked to write a personal note on the late Charles Follen McKim, the accounts of his architectural career and work which have already appeared in our JOURNAL and the professional papers necessarily giving but little idea of the man himself. In appearance he was fair and of average height, and possessed of a very attractive personality, which quietly but irresistibly impressed one with the power of the man. With Scotch blood in his veins, he was fond of shooting, and was as much at home on a Scotch grouse moor as in Fifth Avenue, New York.

I first made Mr. McKim's acquaintance in 1903, when he came over to England to receive the Royal Gold Medal of the Institute. He brought over with him a fine collection of photographs of many of his works, which were exhibited for a few days at the Institute, and then returned home: for, though intensely interested in his work, he was not fond of talking of it or himself.

From the time of his honorary membership of the Architectural Association in 1869 he had many professional and other friends on this side with whom he kept in touch, though he was not a ready correspondent. When over in 1903 he entered into and, I believe, thoroughly enjoyed all the engagements made for him by the Institute. As an old friend of Mr. Cheate, then American Ambassador here, and Mr. Henry White, now Ambassador in Paris, he was introduced everywhere, and attended several Court and many other functions, and enjoyed them all. Wherever he went he made friends, and all were desirous of the pleasure of entertaining him. At the same time he was always at the service of members of his profession, and those present at a little informal lunch he gave at the Arts Club will never forget the afternoon passed with him while he modestly described the great scheme for the improvement of Washington.

The day he received the Medal his friends in New York telegraphed their congratulations, to which he replied, "Many thanks: I still wear the same hat," which was true of him to the last. At the close of his visit to England he left with the personal regard, I am sure, of all who had met him and the affection of many, including the writer.

His sympathies were very wide. He was keenly interested in such large matters as Town Planning and Town Improvement, yet with an exquisite appreciation of detail and a love for the co-operation of the sculptor and the painter, with the best of whom he was on intimate terms. The education of the architect was also of the greatest interest to him. The American Institute at Rome almost owes its existence to him, and no trouble was too great for him to undertake in its behalf. He was

also an excellent and discerning critic: his views, however, were so kindly expressed that with so much knowledge that they could hurt the feelings of no one.

In America, when I was there in 1906, there seemed to me to be a universal feeling of respect and admiration for him, and for his work, from the President Mr. Roosevelt downwards, while the members of his own profession appeared to me all to appreciate his worth and to recognise his great practical as his just title. As has been said, he brought respectability, refinement, and dignity into American architecture, when these qualities were most needed, and he has left a tradition in his office which will live long after him.

While in New York he showed me his office and drawing-room with its enormous staff, many photographs of the late Stanford White's work and some of Mr. Mead's, but with great reluctance anything of his own. Mr. Pierpont Morgan's Library is an excellent example of his refined taste. A hard-headed man of business told me he often waited five minutes out of his way of a morning for the pleasure of passing it. I did not see so much of him in New York as I should like to have done, for the shadow of the end was already upon him. The death of Stanford White must have been a great shock to him, and his strenuous life had told upon him. "I have turned the candle at both ends and also in the middle," he would say of himself with a smile, though his interest in everything appeared as keen as ever.

Just before leaving New York he dined with us, alone at his special request, and we talked well into the night, he being keenly anxious to know all about things over here, the arrangements for the rebuilding of the Quadrant and other London improvements, in view of many schemes he himself had in hand; and when he left I felt I was saying good-bye for the last time to a man of genius who had greatly enriched his country, and who through a life of much prosperity and trouble had preserved the characteristics of a genial, modest, educated gentleman.

During his life he received many honours, and the American Institute of Architects were, I believe, to have presented their gold medal to him in December next, while one of the last honours he received was the honorary degree of Doctor of Laws from the University of Pennsylvania on the 22nd February of this year, when he was able to be present as the official guest of the University. The Professor of Architecture, in presenting McKim to the University, said: "During your career architecture has advanced in this country from obscurity to its rightful position as the master art. In this development, sir, your influence has been supreme by reason of a noble purity of style, exalted professional ideals, and a passionate devotion to the cause of education."

13th October 1909

ASTON WEBB.

MUNICIPAL SURVEY OF PARIS.

By W. H. WARD, M.A. Cantab. F.R.S.

Through the courtesy of the President of the Municipal Council of the City of Paris our Library has acquired this summer a valuable addition to its reference department. He has been good enough, in response to a request of the Librarian, to present to the R.I.B.A. a complete set of the Plans of the City of Paris (1905-7), showing the results of the most recent municipal survey as carried out by the "Service du Plan de Paris," a gift which makes a most acceptable companion to the Ordnance Survey sheets of London recently purchased.

The plans consist of two series: (1) a plan of Paris and its environs, in three sheets; (2) plans of the "arrondissements," in sixteen sheets. The first series is to the scale of $\frac{1}{100,000}$, or nearly the same scale as that of our six inches to the mile Ordnance plans, which works out to $\frac{1}{105,000}$. The three sheets, which are continuous from west to east, when put together, form a plan measuring roughly 78 inches by 43 inches. Its length is greater than its height, so as to permit of the inclusion of the two great parks which lie at the gates of Paris at either end. On the left the plan extends far enough to show the reach of the Seine which flows on the west side of the Bois de Boulogne, as well as parts of Mont Valérien, St. Cloud, and Sèvres. To the east it shows the Bois de Vincennes, with the little known suburban district to the north of it, and the forts of Reuilly, Noisy, and Romainville. At the top and bottom the map extends but little beyond the walls. To the north it goes as far as Courbevoie, part of Asnières, St. Ouen, and the Pantin-Bonny Cemetery, but stops short of St. Denis. To the south it reaches to a line running from Meudon to St. Maurice and including the forts of Issy, Vanves, and Montrouge, and the asylum of Bicêtre. In the centre the compact, rounded shape of Paris proper stands out clearly in its girdle of bastions.

The second series is to the scale of $\frac{1}{50,000}$, or not quite a fifth of that of our five foot to the mile Ordnance plans, which works out to $\frac{1}{52,500}$. The sheets measure 38½ inches by 26 inches, with the exception of No. 12, which is devoted to the large Seventeenth Arrondissement—Passy—extending from the Arc de l'Etoile to the Porte de Saint-Cloud, and measures 47½ by 30 inches. Each of the twenty "arrondissements," or boroughs, into which Paris-within-the-Walls is divided has a map to itself, except the smaller central ones, which are grouped in twos (1 and 2, 3 and 4, 5 and 6, 9 and 10).

Not only does this show the subdivision into quarters—"quartiers"—and give much similar information within the limits of the borough, but the plan of the surrounding districts is continued in less detail up to the border of the sheet, thus making the sheets overlap and greatly increasing

their usefulness. The arrondissements, it may be remarked, are numbered on a spiral system starting from the Louvre, and following the course of the sun. Thus the first four—Louvre, Bourse, Temple, Hôtel de Ville—represent half a revolution, after which one complete revolution brings us to No. 11—Popincourt—and a second to No. 20—Ménilmontant.

Unlike the larger scale plans of London these plans do not as a rule indicate the divisions between properties or the outlines of individual buildings. In the case, however, of all public or quasi-public buildings—*i.e.* not only of state and municipal buildings, but of theatres, museums, stations, embassies, churches, and so forth—the block plan is given. The marking of the numbers of the houses supplies a valuable piece of additional information which our Ordnance Survey denies us, though it is more necessary in London, where the numbering is chaotic, than in Paris, where a uniform system is enforced: streets running more or less to and from the Seine being numbered from the end nearest the river and the cross streets from the eastern end, with the odd numbers to the left and the even to the right in both cases.

Among the many interesting things to be learnt from these plans are the contemplated improvements, which have received the sanction of the Municipal Council, such as the widening of existing streets and the formation of new ones. Thus, for instance, we may see that the Rue du Louvre, which is already being extended northward towards the great Boulevards, is to be prolonged to the south by a new bridge connecting up the western point of the Ile de la Cité, and touching land at a point opposite the Impasse Conti. From this point a new street, passing between the Hôtel des Monnaies and the Palais de l'Institut, is to be pierced in a south-westerly direction as far as St. Germain-des-Prés. The Pont du Carrousel is also to be rebuilt more than double its present width, and immediately opposite the Guichets du Louvre, and from its southern end two new streets are to diverge, one to join that spoken of above at St. Germain-des-Prés and the other to enter the Boulevard St. Germain opposite the Boulevard Raspail.

One trait must strike the most casual observer as distinguishing the official plans of the two great capitals of Western Europe, and that is the manner of their presentation. The difference represents, it must be confessed, only too faithfully the difference in the point of view of the two nations. The Anglo-Saxon aims, as a rule, at mere utility, and cares not how bald a statement be, if only the facts be correct. The Latin demands good manner as well as good matter. No one would linger over our Ordnance plans (one moment more than was necessary to extract the desired information, but these Parisian plans, which are a beautiful example of the lithographer's art, give genuine pleasure to the eye quite apart from the information they convey,

which, it is needless to add, is none the less accurate for that.

Fine, however, as they are from this point of view, neither they nor any product of modern photographic processes can rival in charm the beautiful engraved plans of the eighteenth century, of which the culminating example is that published in 1798, giving the result of a survey completed in 1791. Undertaken as a private venture by Paul Verniquet, one of the city surveyors, but afterwards encouraged by Louis XVI., this great enterprise was the work of many years and was carried out under considerable difficulties; the narrow, tortuous, and crowded thoroughfares had, for instance, to be measured in the small hours by torch-light. It is an invaluable authority for the topography of the Revolutionary era, before Paris had undergone the Napoleonic improvements. The Verniquet plan is the last of the thirty-three plans of Paris reproduced in the *Atlas of the Topographie Historique du Vieux Paris*—a work, by the way, which our Library ought to lose no time in acquiring. There can be no more fascinating study for the lover of Old Paris, so rapidly disappearing, than this atlas, which, beginning with six plans, reconstituted from the available archaeological data, of the city in Gallic, Roman, and mediæval times, passes on to a series of twenty-five plans, engraved by contemporaries at various dates from the Renaissance to the Revolution. The earliest is a wood block published in 1541 by Sebastian Munster, who had never visited Paris, but apparently derived his information from a Flemish tapestry. Other sixteenth-century plans are drawn from actual observation; but the earliest plan based on modern trigonometrical methods is that of Gomboust (1652), and one of the completest that drawn up by Pierre Bullet and François Blondel, the architects respectively of the Porte Saint-Martin and the Porte Saint-Denis (1676). After this a series of ever-increasing accuracy brings us down to the end of the eighteenth century. Most of these plans derive a decidedly decorative character either from their charmingly composed ornamental borders and the insertion of views and figure subjects, or of emblematical and heraldic devices, or again from the quaint and in some cases beautiful drawing of the buildings; for many of them are drawn *en cavalier*, i.e. as bird's-eye views, and are therefore of great use for tracing the history of individual edifices. There is thus no gap in the graphic record of Parisian topography from the clumsy "pourtraict" of the German friar to the latest product of modern scientific and artistic methods, which has now been placed at our disposal by the generosity of the present rulers of "la Ville Lumière."

"REINFORCED TERRA-COTTA."

[Communicated by LADY BAKER, Forest Garden, Burley, Hants.]

The day of the solid brick is over. Everywhere, especially abroad, one sees it gradually being superseded by pierced bricks, thick or thin, of all shapes and dimensions, and by blocks of hollow concrete, so much used in modern erections. Every invention that can minimise weight and labour in building is now universally sought after. In former days, when we were at the mercy of cannon balls, it was necessary to have walls 18 inches to 6 feet thick. Now that no wall could for a moment resist the impact of modern warfare, we recognise it is time to reconsider our form of domestic building, to see if—like the Japanese, who survive a somewhat rigorous winter in wooden houses with partitions of paper—we, too, cannot construct ordinary buildings of less substantial mould, which shall yet be impervious to the sudden changes of our temperature. While pondering on this subject, the following words in an old encyclopædia caught my eye: "Brick or burnt earth is the most durable of all manufactured substances made by man, and the following statistics serve to prove it. A block of Portland stone, about 6 inches cube, *cracked* under a weight of 282 tons, and *crushed* at 292 tons per foot super; a block of Bath stone, the same size, *cracked* at 88 tons and *crushed* at 104 tons; a similar solid block of terra-cotta *cracked* only under a weight of 442 tons, and bore a weight of 523 tons before it *crushed*." These facts speak for themselves. Brick of some sort seems therefore the substance of all others with which to experiment, in the case of buildings where stone, from its costliness and weight, would be impossible. It must be borne in mind that I am not speaking of a magnificent pile of buildings, either private or public, for which stone alone could furnish a fitting material. It is rather of such modest erections as "week-end" cottages, workshops, dairies, municipal and sanitary buildings, for use rather than for show, and especially where space is precious and where economy has to be considered, that a hollow brick in its various developments demands special notice, and I would urge on architects the special claims of what I can only describe as "reinforced terra-cotta."

What is "reinforced terra-cotta"? it may be asked. A "reinforced terra-cotta" building I would describe as an iron or steel frame structure filled in with slabs of hollow terra-cotta. This form of building is very prevalent in the South of France, especially Provence, where I watched with much interest its use in a little house built to my own designs near Grasse. The partition walls, floors, ceilings, etc., were all made of hollow tiles, some flat, some convex, according to the position they occupied, and cemented together, one by one. The

tiles themselves had three transverse hollows running through them, were made of white clay, and were about $\frac{1}{2}$ inch thick, the hollows being used for cementing, not for ventilation, as is usually the case where thin hollow bricks, such as the "Prazzi," are used in England. This cementing together of the two ends forms a threefold bonding between the tiles, and gives great strength to the wall. It was in consequence of these and other observations, as I watched the French and Italian masons at work upon this little house, that I resolved to introduce this form of building into a projected house in England, and, if possible, to improve upon it. I considered that the bonding of each end formed by the three transverse rods of cement, when set, practically made the two tiles into one piece, the cement penetrating about an inch or more into the hollows of each tile; but the space on the top and bottom of the tile was too thin, and most of the cement exuded. I therefore decided to have my tiles made with a deep "tongue and groove" at the top and bottom edge, like matchboarding, so as to fit into each other: this would allow room for cement, and form an extra bonding which would render them doubly strong. This form of tile I propose to introduce for the benefit of my Tinted Terra-cotta Industry, to which allusion was made in the JOURNAL R.I.B.A. for 23rd January 1909. I have tested it in all possible ways. A piece of wall was put up as an experiment and pulled down again, and it was found that in many cases the tiles broke across the joints rather than unlock. One can thus preserve the thinness of the original French tile while doubling its strength. This enables the slabs to be made of considerable size, ready to slip in between the iron grooves, in panels or sections, the iron itself being covered with a terra-cotta moulding to protect it. This method of building occurred to me, after seeing a door 7 feet by 3 which my mason and his son had cut out of one partition, under my own supervision, transferred bodily to a corresponding space opposite. My principal object in introducing this form of construction is to provide an economical temporary building, especially for use as an isolation hospital, which could be put up or taken down at will. Being glazed inside and out it would be fire-proof and germ-proof, and less liable to changes of temperature than the usual temporary buildings of matchboard and corrugated iron. The roof would be on the same principle, namely, iron rafters with slabs of tiling resting upon them, the iron being covered with mouldings, and a ridge tile of terra-cotta. The weight of a roof thus constructed would be less than half that of an ordinary overlapping tiled roof. As in many municipal towns it is usual to have one or more small emergency isolation hospitals of matchboard and corrugated iron, which when the outbreak is over have to be burnt on account of infection, it struck me that a great saving of public money might be effected by the adoption of this "reinforced terra-

cotta," as the buildings could be disinfected, taken down, and stored when not wanted for use.

I must not forget to add that temporary buildings might also be reinforced by strand wire being passed through the hollow tiles and the T-iron at intervals of, say, three feet, the wire being interlocked in the inverted angle iron at the corners of the building. A hint might be taken from this idea for reinforcement in earthquake zones, as strand wire in a hollow space will rebound where a steel rod embedded in solid concrete would break rather than yield.

As regards cost, considering the permanency of the material, it should compare favourably with wood and iron, and I hope that small isolation hospitals of this description may become possible in many localities where otherwise it would be out of the question. Several district councils might unite together to purchase one, storing it in sections till need arose for its erection; the sole extra cost would be the laying down of a concrete site in each district on which to erect it when wanted. No permanent nursing staff would be required, as a nurse could be procured from some of the metropolitan fever hospitals when needed.

I must add that, whereas in ordinary circumstances cement would be used at the junctions of the slabs of terra-cotta, putty would probably be sufficient to unite them temporarily, as owing to the tongue-and-groove system the tiles fit firmly into each other.

For the partition walls of such buildings as slaughter-houses, dairies, lavatories, casual wards, motor-houses, as well as workshops, the use of these slender yet almost self-supporting tiles must be self-evident. A stronger make of some $1\frac{1}{2}$ inch in thickness, of the same white Dorset clay, glazed or unglazed, would be available for outside walls. The unglazed tiles can be coated outside with cement, inside with plaster. These need only be used up to a certain height, where pressure might be brought to bear upon them, the weight of the roof being in all cases carried by iron girders.

Special provision for ventilation is made by the arrangement of the ridge tile allowing the vitiated air of the room to escape; the unbearable heat of the corrugated iron roofs is thus avoided. The difference in cost of insurance would be self-evident.

AMY BAKER.

The late M. Choisy's Work on Vitruvius.

Mr. R. Phené Spiers writes that he has ascertained on inquiry that M. Choisy had completed and revised his work on Vitruvius before his death. The work will be in four parts, three of which constitute the descriptive text, and the fourth the plates. The two first volumes are already printed, and the final publication only awaits the completion of arrangements with his heirs.

REVIEWS.

SCOTTISH ANCIENT MONUMENTS.

The Royal Commission on the Ancient and Historical Monuments and Constructions of Scotland. First Report on the Inventory of Monuments and Constructions in the County of Berwick. See Printed for His Majesty's Stationery Office by Nathl. & Co., Limited, 10, St. Martin's Lane, 1909.

The First Report of the Royal Commission appointed to inquire into and make an inventory of ancient and historical monuments and remains in Scotland is now published in a Blue Book. The Commissioners—Sir Herbert Eustace Maxwell, Lord Guthrie, Professor Baldwin Brown, Messrs. T. H. Bryce, F. C. Buchanan, W. T. Oldrieve, and Thomas Ross—have lost no time in getting to work, and the first result of their labours is the publication of a complete survey of Ancient and Historical Monuments in the County of Berwick. The reference of the Commissioners is “to monuments and constructions connected with or illustrative of the contemporary culture, civilisation, and conditions of life of the people in Scotland from the earliest times to the year 1907, such as (1) sepulchral cairns and other burial places; (2) forts, camps, earthworks, brochs, crannogs, and other defensive works, either overground or underground; (3) stone circles and standing stones, and rock surfaces with incised or other sculpturings; (4) architectural structures, ecclesiastical and secular, whether ruinous or in use, including sculptured or inscribed memorials; and to specify those which seem most worthy of preservation.”

Many societies and individuals have laboured in the cause of recording, and endeavouring to preserve, historical, archaeological, and architectural remains, and these will be the first to welcome corporate action such as that now undertaken in Scotland by a body of distinguished men with all the facilities afforded by a Royal Commission. Not the least interesting and important feature of their work is the method and thoroughness of investigation which characterise their first report on the County of Berwick. The Blue Book sets out:—

1. Monuments and constructions specially in need of protection.

2. Monuments and constructions deserving protection, but not in imminent risk of demolition or decay.

Then follows an introduction to the inventory, describing the ecclesiastical structures, castellated and domestic structures, moated mound, prehistoric remains, miscellaneous objects, list of parishes, bibliography, the inventory. Following is an appendix containing the report of Messrs. Ross and Oldrieve on Dryburgh Abbey; indices; and an Ordnance map of the county to a scale of four miles to an inch, with the parish names printed in red. It is perhaps too much at the present time to expect that such a report should

be illustrated with plans and photographs; such illustrations would seem to exist of nearly all the monuments in the inventory, and these are referred to in the text.

The Commissioners have now undertaken to review the County of Sutherland. Their preparatory statement concludes with an acknowledgment of their indebtedness to their secretary, Mr. A. O. Curle, Writer to the Signet, one of the secretaries of the Royal Society of Antiquaries of Scotland.

An important record of the report should not be overlooked—the method upon which the Commissioners visited the subject recorded. It may be desirable that such visits should be renewed at intervals.

W. CURTIS GREEN, F.R.S.
HONORARY SECRETARY OF THE R.I.B.A.

THE CHURCH ORGAN.

The Organ and its Position in Music. By Mr. H. Heathcote Statham. 8s. 6d. 1909. Pp. 78, 61. Coloured and Half-List. 11, Henrietta Street, Covent Garden.

Mr. H. Heathcote Statham's book, *The Organ and its Position in Music*, although not unique in its scope, will be sure to give enthusiastic organ-lovers some congenial reading, not only because it contains much sound and healthy doctrine which they will most gladly accept and endorse, but also because of a welcome sprinkling of debatable matters which, in due course, will probably provoke a little wholesome controversy through the usual channels.

We will merely refer here to the sections which deal with the design and placing of the church organ from the point of view of architectural fitness and convenience. Mr. Statham's contention that a central position on a screen is the best possible for the organ seems incontrovertible. We are not at all sure, though, whether in the case of the smaller cathedral churches, *e.g.* Ripon and Southwell, the effect of congestion, due to filling up the whole width of the screen, is not a mistake. All the same, we do agree that the alternative evil of “dumping” unsightly groups of large pedal-pipes in various parts of the building is much more formidable. Salisbury, Beverley, and Bath occur at once as instances. We would go so far as to say that unless pipes of 32 feet speaking-length can be either hidden from view altogether, or so treated as to form an apparently necessary part of the structural scheme, they would, on the whole, be better dispensed with. The musical loss would be less than the architectural gain. We can hardly support the author's suggestion of elongating the screen east and west in its central portion. The experiment of Salvin at Wells in the middle of the last century has not, we believe, received any great applause from architects, and on the east side the difficulties would be still greater. At Westminster Abbey the organ is treated practically as if no screen existed, and, considering how much organ-

material is disposed on either side in such a way as to produce a sufficiently pleasing effect upon the eye, we recommend it as an interesting study to those who are engaged in the important matter of organ-designing. But, whatever scheme be adopted, there seems to be every reason that the final result should represent the joint efforts of both architect and organ-builder. It is natural, of course, that the latter should prefer to have a free hand, but the gift of correct taste is, to judge by numerous examples we could mention, so often denied him that he ought not to be burdened with even the possible risk of failure.

We fancy that Mr Statham's suggestion of moving both choir and organ into the nave (that is, in the case of parish churches) in the interest of congregational singing would create more difficulties than it would solve. And even if any substantial advantage could reasonably be alleged, the objection to so radical a change would, on purely practical grounds, be so serious as to prevent its general adoption.

But there is much material for reflection and, let us say, sincere appreciation in the book, which we can most strongly recommend to the notice of those who are, or ought to be, interested in the subject of which it treats. Coming as it does from a man whose views, both on the musical and architectural sides of the question, are eminently sound and artistic, it must certainly help to reconcile two interests which have so often been, and, unhappily, so often are still, in conflict; and thereby make it more and more impossible that our noble churches shall be disfigured by the coarseness of sheer blunder, which it would be just as easy to avoid as it is afterwards found impossible to remedy.

F. H. CLIFFE.

CATALOGUE OF ARCHITECTURAL BOOKS.

A Classified Catalogue of the Works on Architecture and the Allied Arts in the Principal Libraries of Manchester and Salford, with Abbreviations of Author, Title and Subject Index. Edited by Henry Guppy, M.A., and Guthrie Vine, M.A. London and Manchester, 1909. [B. T. Batstone, and Sheratt & Hughes].

It will be generally conceded that the task of critically noticing a catalogue of books is one which at the first blush does not present the attractions usually associated with book reviewing. Here one is unable, for instance, to expand on the beauty of the illustrations, or to pay a tribute to literary form; neither is one permitted the luxury of contesting some pet theory of the author, which has long been regarded as the chief among the reviewer's consolations. Yet, in spite of drawbacks which are, after all, unavoidable, one cannot fail to appreciate the immense benefit such a compilation as this confers on technical readers resident in the districts to which it relates. Edited for the Joint Architectural Committee of Manchester by Mr. Guppy and Mr. Vine—respectively Librarian, and

Sub-Librarian of the John Rylands Library, this catalogue comprehends within its covers the title of every book on architecture and the allied arts in the possession of the principal libraries of Manchester and Salford. These are eleven in number, each being represented by an initial letter, which is given a conspicuous place in the entry of every book in the catalogue.

In the editors' introduction very interesting information respecting the scope of the undertaking and the work which it entailed is given. The question of classification—a most vital one—was settled by a decision to adopt the system originated by Dr. Dewey, as best fulfilling the essential requirements of simplicity and an ease of comprehension by those not previously acquainted with it.

Previous to the publication of this catalogue the usefulness of the very fine and extensive collection of works on architecture and the allied arts scattered over the principal libraries of Manchester and Salford was seriously impaired, for there was no means of determining what each library contained except by a personal visit to the various institutions. As a natural consequence much valuable material was allowed to rest upon the shelves unopened, because nobody knew it was there. All this has been now rectified, thanks to the infinite care bestowed upon the combined catalogue just published.

FREDERICK CHATTERTON [A.].

CORRESPONDENCE.

AMIENS CATHEDRAL

[ante, p. 740].

The Museum, Brooklyn, N.Y., 5th Oct. 1909.

To the Editor JOURNAL R.I.B.A.,—

SIR,—I am glad to accept Mr. Bilson's measurements showing that the piers 1, 2 (of the Durand Plan) have settled more than the piers 3, 4, and not the contrary, as presumed by me. My acceptance of his observation on this point is the more emphatic because the vertical subsidence of the crossing piers, which is also due to compression of the mortar beds, is undoubtedly much greater than that of the piers next adjacent to them, and because the step-like descent of the cracks, which is notable in figs. 2, 3 of the crossing piers, is of the same character in both cases. This step-like descent of the cracks which is seen in figs. 4, 5 must therefore be interpreted, by comparison with figs. 2, 3, as proving that the piers 3, 4 have subsided more than the piers 1, 2. In the case of the crossing piers the step line of the crack gradually moves away from the crossing piers as it descends. Therefore the piers in the nave which the step line approaches in the descent must have settled least.

Mr. Bilson appears to overlook the fact that it is a matter of indifference to my argument whether 1, 2 settled more than 3, 4, or the contrary, pro-

vided it be admitted that both pairs of piers have settled vertically by compression of the mortar beds, and this he admits.

It will be remembered that the piers 1, 2 are the tower piers which both parties to the controversy know and admit to be perpendicular. Thus Mr. Bilson is in the singular situation of having taken levels for the subsidence of piers which he knows to be perpendicular, and which he knows were not affected by vaulting thrust, and of asserting that the step-like cracks which resulted are not sufficiently explained by the vertical subsidence, which he has himself measured and announced as 3 inches on the north side. This situation is the more singular because neither he nor anyone else has invoked a thrust of the high vaulting to explain the similar fissures in the transept spandrels, although they are much more serious than the cracks in the nave spandrels, and are related to a greater subsidence (4 inches on the east side). If cracks with fissures of $1\frac{1}{4}$ inches parting, and connected with greater subsidence, can exist in the transept spandrels without vaulting thrust from the high nave being needed to explain them, why should that vaulting thrust be invoked to explain similar but less serious cracks, without fissures, and connected with a minor subsidence, in the nave spandrels?

It thus appears to me that Mr. Bilson's prejudice on the given subject, as an antiquarian, overbalances the weight of his opinion as an engineering expert. Hence his appeal to Burgundian churches and to Beverley Minster fails to affect me. If I cannot trust his judgment for Amiens Cathedral, which I know, I cannot trust his opinion as to churches which I do not know when he compares them with Amiens. Having no opinion at present about the churches cited, his assurance that they determine the question at Amiens appears to me of dubious value, although they may very possibly themselves exhibit accidental dilapidations.

Yours faithfully,

WM. H. GOODYEAR.

[This correspondence will now cease.—ED.]

THE R.I.B.A. SCALE OF CHARGES.

To the Editor JOURNAL R.I.B.A.,—

SIR,—As one point in justification of higher fees, your correspondent "A Fellow" in your issue of 25th September points to a growing evil, viz. architects calling in the services of several sub-contractors, which means separate estimates and separate contracts. Now, Sir, we all recognise that in the case of one or two specialities it may be necessary for the architect to negotiate directly with the makers. But when we see buildings exhibiting signboards telling who is the separate stone mason, the separate constructional engineer, separate plumber, separate electrician, separate faience worker, &c.,

it makes one wonder what the builder is for. Has he so far deteriorated or fallen behind the times as to make all this division necessary? One is often puzzled nowadays to know who really is doing the building.—Yours truly, E. G.

To the Editor JOURNAL R.I.B.A.,—

SIR,—The letter from "A Fellow" published in the JOURNAL of the 25th September raises some important points with regard to the charges, and I am in accord with all he says. Under Clause 5, in the case of the work not being carried out, the charge for drawing plans and preparing specification is given as 2½ per cent. on the estimated cost. If this cost is below £1,000, and 5 per cent. is not considered to be remunerative, probably 7½ per cent. would be charged by the majority of architects. At all events assume it to be so. If a job estimated at, say, £900 went off, it appears to me that 2½ per cent. is not remunerative for the work done in preparing the drawings and specification, and that the charge should be half of 7½ per cent., viz. 3½. I should like to know if this charge could be fairly and reasonably made.—Yours faithfully,

An A.R.I.B.A.

ALLIED SOCIETIES.

The Cardiff &c. Architects' Society.

The members of the Cardiff, South Wales, and Monmouthshire Architects' Society had the pleasure of visiting the new University College buildings by the kindness of the authorities, and they were shown over the buildings by the architect, Mr. W. D. Caroe, F.S.A. (E.), who pointed out the various features of the fine pile, from the basement to the roof. The methods of heating, ventilating, and lighting were explained, and various details of construction were pointed out. The members particularly admired the architectural features of the entrance-hall, the splendid library, and the beautiful council chamber. At the end of a most interesting visit a hearty vote of thanks was accorded to Mr. Caroe, upon the proposition of Mr. E. Seward (E.), seconded by Mr. E. H. Fawcner (E.).—G. A. BIRKENHEAD, *Hon. Sec.*

The Royal Architectural Institute of Canada.

The Royal Architectural Institute of Canada, which was recently admitted to alliance with the Institute, held its Second Annual General Assembly at Toronto on the 5th and 6th October. Addresses were delivered by the Mayor of Toronto and by the Presidents respectively of the Royal Canadian Institute, the Ontario Association of Architects, and the Toronto Society of Architects. The indoor functions included the reading of papers on "The Possibility of a National Status for Architects in Canada," and a Criticism of Twenty Representative Canadian Buildings, shown by lantern views. Amendments were agreed to in the By-laws of the Canadian Institute, the Code of Ethics, the Schedule of Charges, and the Conditions for Architectural Competitions. The proceedings concluded with the Annual Dinner at the National Club.



9 CONDUIT STREET, LONDON, W., 16th October 1909.

CHRONICLE.

The Institute Conditions for Building Contracts.

The Institute of Builders and the National Federation of Building Trades Employers of Great Britain and Ireland have intimated their acceptance of the amendment of Clause 30 of the R.I.B.A. Form of Contract, viz. that the words "so as to" shall be substituted for the words "nor shall it" in the penultimate sentence. The sentence now reads: "No certificate of the Architect shall be considered conclusive evidence as to the sufficiency of any work or materials to which it relates so as to relieve the Contractor from his liability to make good all defects as provided by this Agreement." This change has been made on the recommendation of the Practice Standing Committee, and it carries out a suggestion put forward in a judgment in a recent case in the Law Courts. Members are advised that the forms now being issued by the Institute have been amended in this particular.

St. Paul's and Southwark Bridges.

At a recent meeting of the R.I.B.A. Art Standing Committee the proposals of the City Corporation to build a new bridge over the Thames and to widen Southwark Bridge were under discussion, and it was resolved to ask the Council to arrange for the reception of a deputation of artists by the Lord Mayor and Corporation with a view to securing satisfactory artistic designs. The Lord Mayor and Corporation have been approached on the matter, and have consented to receive the deputation at an early date.

Competition for a Design for a Façade to No. 9 Conduit Street.

The Proprietors of *The Builder* are offering a First Prize of Twenty Guineas and a Second Prize of Ten Guineas for the two best Designs for a suggested new Façade to the premises of the Institute, No. 9 Conduit Street. Particulars and full instructions to competitors are given in *The Builder* of the 2nd October, pp. 362, 363. The promoters consider that the central home of the architectural profession should be "represented externally by something of more architectural importance and

significance than the existing rather prim piece of cement classicism," and they invite "some of the younger members of the profession to suggest what they could do by way of replacing the present façade with something of more monumental character." They advise that "an endeavour should be made to convey in the design the idea that the façade is that of the central home of the architectural profession; to symbolise its special relation to architecture." Designs have to be sent in to *The Builder* office by the 17th December. The award will be made by the Editor of *The Builder* in conjunction with Mr. Halsey Ricardo and Mr. W. Curtis Green.

The Institute Premises: an Historical Note.

The idea of *The Builder* competition has been doubtless suggested by the approaching entry into possession by the Institute of the whole of the premises comprising No. 9 Conduit Street, the proposals for the acquisition of which were formally ratified by the General Body at the meeting of the 23rd July last.

It is of interest at the moment to recall that the first rooms of the Institute, which were engaged early in 1835, were at 43 King Street, Covent Garden, better known as Evans's Hotel. This building, said to have been designed by Inigo Jones, has been immortalised by Thackeray in his description in *The Newcomes* of "The Cave of Harmony." In 1837 the grant of its first Charter gave the Institute a position of greater stability, and its growing membership and ever-widening activities necessitated more commodious quarters and perhaps a more desirable neighbourhood. These were found at No. 16 Grosvenor Street, and here for twenty-two years the work of the Institute was carried on. Long before the end of this period, however, it had become evident that a move would have to be made to larger and more convenient premises, and this desideratum led to the formation of the Architectural Union Company, which was established, in the terms of its articles of association, "for the purpose of providing accommodation for the different societies connected with architecture, and especially for the Royal Institute of British Architects and the Architectural Exhibition." Sir Charles Barry was Chairman of the Company, Mr. (afterwards Sir William) Tite, Deputy Chairman, and a number of prominent members of the Institute Directors. One of the original directors still survives in the person of the *doyen* of the Institute, Mr. H. B. Garling [*Associate* 1843, *Fellow* 1857]. The then President, the Earl de Grey, presented to the Institute twenty shares in the Company free of all further calls. The Architectural Union Company, having acquired the property No. 9 Conduit Street, constructed the Galleries, since known as the Conduit Street Galleries, at the rear of the house, for the accommodation of the Architectural Exhibition, the Architectural Photo-

graphic Society, the Institute occasionally, and similar bodies with cognate objects. The Institute was assigned the entire suite of apartments on the principal floor (the present Library rooms, with separate staircase, a large room for casts, models, &c., and apartments for an attendant in the basement and upper floors. The Institute took possession in the year 1859, and has just completed its fiftieth year of tenancy. The premises were formally opened by Earl de Grey at the first meeting of the Session, 7th November 1859. A melancholy interest attaches to the event in that it was the venerable President's last public act. He was then in his seventy-eighth year and apparently in good health. He fell ill, however, a day or two afterwards and passed away in less than a week after the meeting. Earl de Grey had been President since the foundation of the Institute twenty-five years previously.

The hopes of the Architectural Union Company that their premises would be dedicated in perpetuity to societies connected with architecture, and architecture alone, were disappointed. Both the Architectural Exhibition and the Photographic Society, after a few years of struggle, came to an end. The ground-floor was eventually taken over by a music-seller, and the galleries, after serving for some years for picture exhibitions, have latterly done duty as the auction-rooms of Messrs. Knight, Frank & Rutley.

In 1890, the Institute having again outgrown its premises, advantage was taken of an opportunity to acquire the music-seller's shop and the basement immediately beneath it. The additional premises were converted into a Council-room and Secretary's offices, and the whole of the first floor was set apart for Library purposes.

In 1897 the Institute took over three rooms on the second floor which had been vacated by the Royal Academy Students' Club. This gave the Institute full possession of all the front part of the house. The new rooms relieved the immediate needs of the moment, one room serving as a tea and smoking room, another as the Editor's office, and the third as a Library store-room.

It is to meet the ever-growing needs of the Library, to provide wall-space for hanging drawings, to get rooms on its own premises for holding meetings and examinations and exhibitions of students' work, &c., that the Institute is now arranging to take over the galleries in the rear and to enter into full occupation of the whole of the premises owned by the Architectural Union Company. The question of cost will be found fully dealt with in the report of the meeting of 23rd June last [JOURNAL, 26th June].

Mr. Leonard Stokes [F.] has been appointed by the President to act as Assessor in the competition for the proposed Town Hall and Municipal Offices, Johannesburg, South Africa. Mr. Stokes will be leaving for South Africa on the 11th December.

COMPETITIONS.

Warrington Elementary School.

Members proposing to take part in this competition are advised that the conditions are under consideration by the R.I.B.A. Competitions Committee, and that a further announcement may probably be expected.

LEGAL.

Architects and Builders: Dry-rot. Negligence.

This action was brought by Mr. C. L. Schofield a claimant, against Mr. J. W. Wyles and Mr. A. M. Mitchell architects and Messrs. Mitchell Brothers Builders, to recover damages for loss of and breach of duty in carrying out a valuation at the plaintiffs' house, Goodstead Hall, Essex.

Mr. J. R. Atkin, K.C., and Mr. Valentine Ball appeared for the plaintiff, Mr. Marshall Hall, K.C., and Mr. R. L. Moore for the defendants.

Mr. Atkin, in opening the plaintiff's case, said that in 1906 the plaintiff appointed Messrs. Wyles and Migott architects of the work to be carried out by the defendants Mitchell Brothers at Goodstead Hall. The plaintiff wished steps to be taken to deaden sound between a sitting-room on the second floor and a nursery overhead. A mepuzzing was used for the purpose. In May 1908, after the plaintiff had been residing in the house for nearly a year, it was discovered that the whole floor under the nursery was affected with dry-rot. The floor had to be removed and replaced at a cost of £120 and plaintiff also lost the use of the house while it was being done. He concluded that the dry-rot was due to the mepuzzing being put in wet, and not being taken out time to time before the floor boards were laid. The fact that the floor boards were grooved and banded, and that there was no vent underneath, made it all the more important to see that the puzzing was properly laid. He objected by the architects was that they were not consulted about the puzzing at all, and did not know of its existence until the dry-rot was discovered. It was also contended on the plaintiff's part that the dry-rot was solely due to the fact that lime-slime had been put down immediately after the floors were laid.

Evidence was called that the puzzing was put in early in 1907 and the floor laid three weeks later.

For the defence, Mr. Wyles said he never knew of the puzzing till he heard of the dry-rot. He did not approve of it, and, if put in, the place should have been ventilated.

Mr. Migott said that he did not think the dry-rot was due to any negligence on the part of Messrs. Mitchell Brothers, but was caused by putting down the lime-slime and stopping the current of air through.

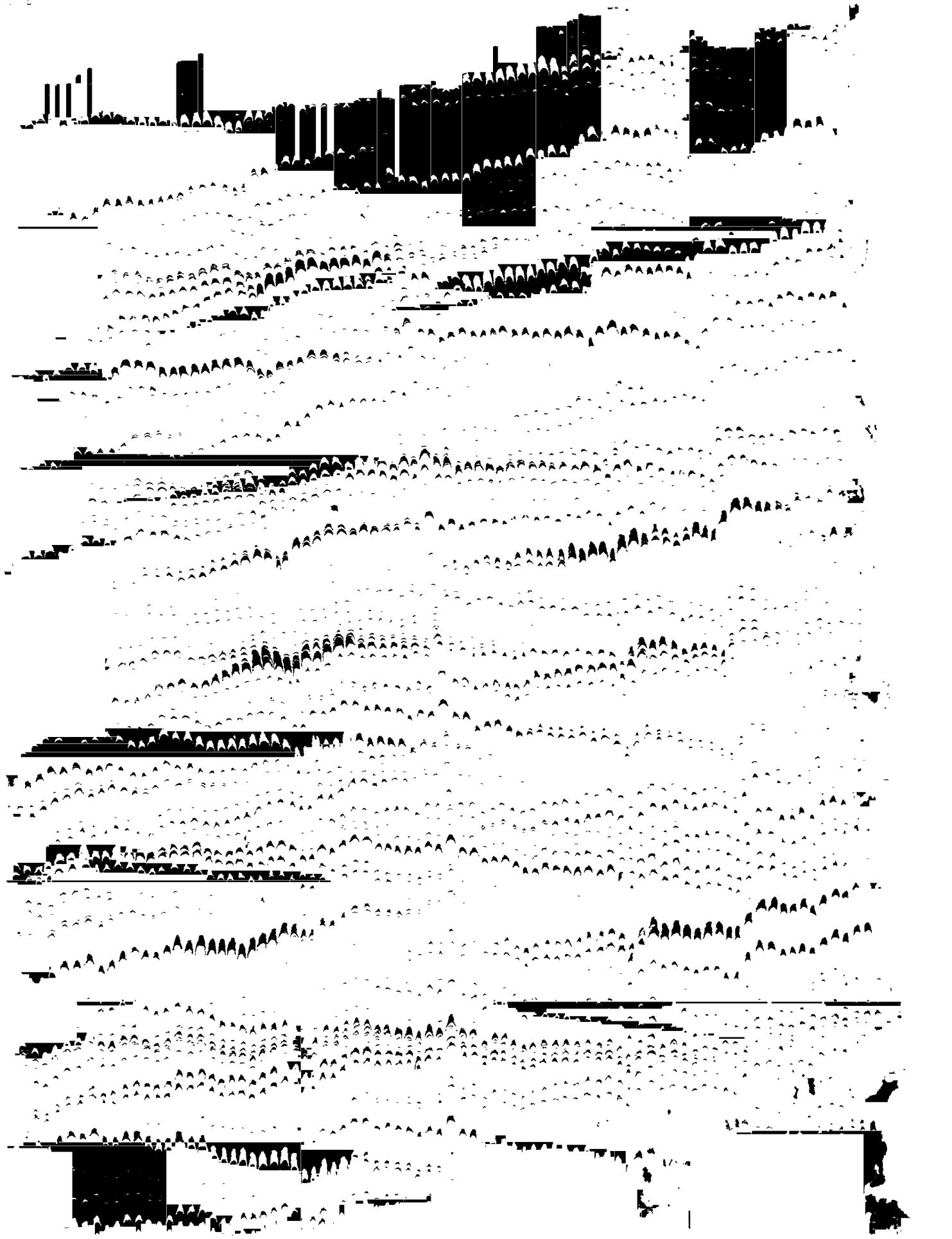
The foreman of the work said he had not considered the question of ventilation. The architects did not authorise the putting in of the puzzing, and he did not mention it to them.

Mr. Justice Grantham, in summing up to the jury, said the question was, Had negligence been proved against both, or either, of the defendants? There was strong evidence that both Mitchell and Migott were there when the order for the work was given. His Lordship reviewed the evidence, and in conclusion said that the architects should not allow things to be done without using their eyes.

The jury found a verdict against all the defendants for £165, and added that in their judgment there was a minor degree of blame in the defendant architects.

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